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ROLE OF ACCOUNTING IN PUBLIC UTILITY REGULATION

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THE ROLE OF accounting in public-utility regulation is merely one aspect of the role of accounting in the broader field of economic control.

Of course, the general development of accounting is a process of evolution which has gone on for many centuries whereas the use of accounts in public utility regulation is a matter of recent origin. It is, in fact, considerably less than 100 years old. Nevertheless, the use of accounts as a tool of regulation is, in a sense, a forerunner of the current dominant trend in general accounting.

Our procedure in the present discussion will be to consider first, public-utility regulation and some of the accounting problems associated with it. On the basis of that discussion we shall turn to the broader problem of general economic control in the expectation that the broader view will help us to appraise better the place of accounts in public utility regulation.

EARLY REGULATION

The regulation of public utilities developed as a practical expedient designed to correct certain injustices and abuses which had arisen in the prevailing economic system of competitive control. Economists, students of government, and accountants alike recognized no need for any theoretical adjustments to accompany this practical buttressing of the existing social structure. The responsibility of regulating agencies was essentially negative in character. They were expected to prevent the abuses which had called them into being.

Positively stated, this responsibility of the regulating commission was to enforce competition or, at the very least, achieve by direct regulation the results which would be afforded by effective competition. Economists long had recognized that the market was surrounded and supported by a complex system of laws and conventions. Regulation was intended to be an extension of this underlying support. The regulating commission was to be a kind of dyke on the economic system, guiding and directing the currents of competition. The yardstick to be applied by it clearly was the competitive market and the principles summarizing the market's operations.

Regulation in fact has been quite another matter. It has not followed either the spirit or the theoretical outlook which accompanied its inception. That spirit and that outlook came from the abstract analysis of an idealized individualistic society, whereas regulation has been a practical adjustment worked out in the sphere of concrete, every-day affairs.

As agencies for the realization of justice between the owners and patrons of public utilities, and to prevent discriminations between different patrons, regulating commissions faced immediate and practical situations. The utilities were going concerns with investments already made in operating assets. The primary initial problem was one of setting and enforcing reasonable rates. As a basis for the solution of this problem, commissions turned their attention to the valuation of properties used by the public utilities.

Two theories of valuation promptly developed. These were cost of reproduction, and original cost. The latter, in the course of time, was superseded by the prudent-investment theory which took its name from the fact that it excluded from the rate base costs which could have been avoided by the exercise of reasonable judgment.

The clash of opinions of the supporters of these two schools of thought occupied a prominent place in the early discussions of regulation. The issue, however, has become somewhat less acute as regulation has become more mature.

The essential difference between the two theories is in their treatment of changes in the values of assets in use arising from causes outside the operations of the utilities, such as those from changes in the general price level or from growth of the urban community served by a utility. Under the application of the cost of reproduction theory such increases would be included in the rate base. Thereby a higher income would go to the investors or owners. Conversely, a decrease in values would lower the rate base and give owners lower incomes. If the original-cost or prudent-investment theory were used the consumers or users of service would benefit when prices went up by continuing to receive service at rates determined when competitive values were lower. They would pay for this gain, however, by continuing to pay rates based on the cost of assets even when competitive values for such assets had declined.

Under the cost-of-reproduction theory, therefore, the owners stand to gain from increases in the values of assets used and at the same time they bear the risk of losses in such values. For the consumers, this would mean that in each situation they would be paying for the service received a price approximately what they would pay in that situation if the service were being rendered under competitive conditions. Hence the cost-of-reproduction theory represented an application of the competitive market yardstick which was implicit in the spirit in which regulation was adopted. This fact meant that in the early period of regulation the cost of reproduction theory enjoyed a strong initial bias in its favor. The reasons it has not been able to retain this initial advantage will appear in the following discussion.

THE ACCOUNTING YARDSTICK

From the start regulating commissions have been heavily dependent upon accounts. Uniform accounting systems for the different classes of utilities have been a basic standard requirement as a minimum starting point in regulation. In their day-to-day decisions, commissions have been concerned with asset values, the determination of what expenditures may properly be capitalized, the disallowance of good will, the approval of certain other intangible assets, the rate of return to be earned, and a host of other problems all running in accounting terms.

To understand why regulating commissions were so dependent upon accounts from the start of their activities we need to go back still further in the evolution of our economic system.

In a thorough-going individualistic society in which economic activities were car-

ried on exclusively by individuals, the market would be the means of adjustment of economic interests as between all of those who resorted to it as buyers and sellers. Such was in fact the essential nature of the early market economy. Adam Smith predicted that the corporation would never be an important factor in economic affairs because of the lack of a personal interest in its management. How much mistaken he was needs no demonstration.

When the corporation, operating in the market as a legal person, became large and relatively complex, various groups of interests developed within it. In the very nature of the situation the market could make no distinction between those interests which were internal to the business unit. The variety of such internal interests has become still greater with the appearance of supercorporate units in the form of holding-company organizations.

Inability of the market to adjust conflicts of economic interests internal to the business unit has necessitated a resort to other agencies of adjustment and control. In general, the task of supplying this necessary supplement to the market method of adjusting economic interests has been assigned to accounting. Beginning with the problems of partnership accounting, even before the advent of the modern corporation, it has been an evergrowing responsibility.

As the corporation has become larger and much more complex in its organization and activities, the stockholders have been excluded from any effective participation in its control. In the first place they have become too numerous and too widely distributed geographically for any considerable portion of them to assemble for even an annual meeting. But more important still is the fact that the problems of management of such an enterprise have become so technical and complex that the stockholders would be quite helpless even if they could be assembled in an annual meeting.

The failure of stockholders' control has brought with it a corresponding breakdown of control by directors. Control of the so-called annual meeting of stockholders by the officers of the company has meant in fact that the directors have come to be selected by the officers. At the same time even general policies of such enterprises have become so much a matter of technical administration that the outside directors frequently have found themselves as completely dependent upon the judgment of the officers as stockholders would be. The resulting tendency has been for the board of directors to become a rubber stamp in the hands of the officers of the company. The fact that some large companies have been compelled to reduce the legal quorum for directors' meetings to a minor fraction of the board's membership is an index of this trend.

This concentration of power in the hands of the management of large business enterprise has high-lighted the growing responsibility of accounting and the accounting profession. The way in which the accounts of a large corporation are kept has long since become a matter of vital interest to stockholders. And since this includes potential as well as actual present stockholders it means that the question is one of vital public concern. In consequence practicing accountants are called upon to certify that the published statements of corporations have been arrived at by keeping records in accordance with the accepted principles and practices of accounting.

The purpose of this somewhat commonplace analysis has been to show how accounting has become a yardstick by which the conduct of business enterprise is measured and controlled. Accounting has become as much a part of the social and legal machinery of economic control as is the

market itself. And, while the *de jure* status of the regulation of public utilities was in its initial stages tied up with the competitive market yardstick, the *de facto* practices of regulating authorities have always been more closely tied up with the increasingly important accounting yardstick. It should be pointed out also that while the cost-of-reproduction theory of valuation of assets has represented an application of the competitive market principle, the original cost or prudent investment theory has, with equal aptness, fitted in with the accounting basis of control.

SOME ACCOUNTING PROBLEMS

When regulating commissions turned to accounting for help, they often added to their difficulties even while arriving at workable decisions on the particular cases in hand. Because accounting had developed as a tool of private business enterprise, its outlook and its rules did not always meet the needs of a regulating commission.

One of the immediate problems confronting regulating authorities was the problem of depreciation. How ready accountants were to help with the problem is indicated by the fact that after nearly three quarters of a century of regulation accountants are not yet agreed upon a definition of depreciation. In fact, the action of regulating commissions was one of the factors which helped to standardize the accounting practice of allowing for depreciation before arriving at a statement of profits available for dividends.

Early in regulation there developed the concept of a value level of depreciable assets in use at a point half way between the cost new and composite scrap value. This is the point around which the depreciated value of the group of assets would fluctuate after the plant passed the initial period of declination from cost new, assuming the use of the straight-line method. This concept has exercised an influence in the field of regulation which is out of proportion to its real merit. It has been a significant factor in the thinking of those who have been charged with regulating authority but its more important contribution has been in the promotion of controversy. One of the controversies which it has promoted has been over the question whether or not straight-line depreciation is excessive.

The period of public-utility regulation has been one in which accounting has made rapid progress in the direction of more accurate methods of accounting for costs. It would be illogical to expect precision in accounting for a newly recognized cost like depreciation before we had achieved a high level of accuracy in cost determination generally. Undoubtedly in the vast majority of cases in which the straight-line method has been used by accountants, its use has been justified by the fact that the different inaccuracies involved in it have come within the general margin of error of cost determination. It would be a waste of effort to attempt meticulous accuracy in figuring depreciation cost when other costs are not determined with a comparable degree of precision. But as cost methods generally improve we can expect a corresponding attention to increasing the accuracy of depreciation cost. That we have not yet achieved even a reasonable degree of precision in depreciation accounting is indicated by the report on depreciation of the American Institute Committee on Terminology.

The question whether straight-line depreciation is excessive is meaningless when stated as an abstract proposition. Applied to groups of some kinds of assets the straight-line method would give too little depreciation rather than too much. The turbines in a hydro-electric plant, a machine used exclusively to produce a style

good, a dairy cow, and an airplane engine depreciate in strikingly different ways. To apply a single method of calculating depreciation to all of them would be very crude accounting.

If a given enterprise makes use of a large volume of assets which require large investments of capital, have relatively long useful lives, and require relatively small expenditures for repairs, it should select a method of calculating depreciation which will take these basic conditions into account. If at the same time such an enterprise uses relatively small amounts of labor and raw materials, its capital costs, including depreciation expenses, will make up a correspondingly large proportion of its total operating costs, and a premium is thereby placed upon the accurate determination of operating costs which are associated with the capital used. Such an enterprise should use a method of calculating depreciation which takes into account the effect of interest upon depreciation.

Whether or not the straight-line method will result in excessive depreciation in public-utility accounting depends upon the kind of assets used by the public utility. A public-utility enterprise should not be limited to the use of any one method. Business enterprises, both inside and outside of the public-utility field, should adapt their methods of calculating depreciation to the types of assets to which the methods are to be applied. They will do so increasingly as the standards of accuracy achieved in accounting practice are raised.

Likewise regulating authorities, in their valuations for rate-making purposes, should assume the use of methods appropriate to the assets of regulated companies.

SHOULD RESERVES BE DEDUCTED IN ARRIVING AT A RATE BASE?

In the valuation of assets, as a basis for rate making, should reserves for depreciation be deducted or should the assets used be included at an undepreciated valuation? The controversy over this question has been due largely to the uncertainty of accounting authority on the problem of depreciation.

It has been argued that a public-utility property does not depreciate so long as it is kept in condition to render a constant volume of service. The argument is invalid. A new plant is worth more than an old plant because the new plant enjoys a period in which replacements are fewer than they will ever be again on account of the fact that it starts out with all assets new. If $500,000 is spent in replacing an asset in a public-utility property, it would be foolish to say that the operating assets are worth no more after the expenditure than they were before. One might just as well say that a new asset is worth no more than one which is at the point of being scrapped.

Our discussion of this topic will be clarified if we make the artificial assumption of a public-utility enterprise which is called upon to render a constant volume of services without either growth or loss of patronage. Let us assume that its necessary plant cost $10,000,000. At no time after the original construction of the plant will all of the assets be new at the same time. And the depreciated value of the assets in use will not be a constant figure. When replacements are relatively few they will not offset accruing depreciation and the trend of the total depreciated value of the plant will be downward. When replacements are more than enough to offset accruing depreciation the trend of the depreciated value will be upward. The point around which these changes in value will fluctuate will be determined by the composite scrap value for the plant, the amount of non-depreciable assets, and the rate of interest used in methods which call for a rate of interest.

Let us suppose that in the above case,

after the passing of the initial period, fluctuations are around a mean point of $7,000,000, reaching at the maximum $8,000,000 and at the minimum $6,000,000. Under these circumstances, what should be the rate base upon which the owners should be allowed to earn a reasonable rate of return? The answer to this question is $8,000,000.

Still holding to our assumptions of an original investment of $10,000,000 and a constant volume of operations, let us assume that at a given time the utility shows a depreciated value of properties in use of $7,000,000 and $3,000,000 of invested reserve funds which are earning on the average 3%. Of the reserve funds, $1,000,000 may properly be considered as part of the investment in the enterprise since they will be needed to help finance replacements when they again run ahead of accruing depreciation. However, the other $2,000,000 of reserve funds are not needed in the business and could be returned to the owners. If the reasonable rate of return were 7%, consumers could, with propriety, be charged rates which would afford 7% upon the depreciated value of assets used plus enough to bring the 3% upon $1,000,000 of necessary reserve funds up to 7%. However, it would not be equitable to ask consumers to subsidize the investment return upon the $2,000,000 of reserve funds not needed in the enterprise.

In actual practice the problem of returning capital to the owners does not arise because depreciation funds are used to finance the growth of the business. The usual practice of competitive business may be followed. It is to keep no invested depreciation funds but to follow the more profitable course of investing the funds in the business itself. If this course is followed, the proper rate base is still the maximum depreciated value of assets in use. Our conclusion therefore is that reserves are deductible only down to the point of the maximum depreciated value of assets in use.

INTEREST FOREGONE DURING CONSTRUCTION

One of the problems of regulation in which accounting has not been very helpful is the treatment of intangible assets. This was inevitable in view of the traditional accounting treatment of intangibles.

By ruling out monopoly profits, regulating commissions have disposed of the problem of goodwill in the ordinary sense. However, they have been compelled to recognize the propriety of including in the rate base various costs which do not result in the acquisition of tangible assets. For example, during the initial period necessary to build up the business to a profitable basis, they have allowed the capitalization of costs which in later periods of operation must be charged to expense. Among the costs capitalized under regulation but not under general accounting practice is one which constitutes what might be called an intangible element in the value of a tangible asset. This is interest foregone on owner's capital during a period of construction.

Suppose, for example, that a utility constructed a building at an out-of-pocket cost of $300,000, and that a reasonable allowance for interest foregone while the capital was tied up in the building during construction, was $15,000.

How should this item of $15,000 be entered in the accounting record? Under the influence of conventional accounting the Interstate Commerce Commission sets up a special account for such charges. If the charge were included in the cost of the building, it would be spread over the life of the building as part of the depreciation charge. In the case of initial construction, a rational analysis of the situation and conservatism would both suggest closing the credit item to capital surplus as part of the investment put into the enterprise.

Let us suppose further with regard to the above case that the $15,000 was charged to the building: that at the end of its life the building was depreciated to zero: that a wrecking company removed it for the salvage, and that a new building was constructed under the same conditions as the first one. On these terms, depreciation during the life of the old building will have made available $315,000 and the new building will be placed on the books at $315,000. The credit item, "Interest Foregone During Reconstruction," may properly be closed to income rather than to capital surplus since funds to match it have been made available by the depreciation charges on the old building.

If the interest-foregone cost were charged to a special account and not amortized over the life of the asset, we would find ourselves accumulating additions to the special account and to capital surplus each time the asset was reconstructed. This would make it appear necessary to sink an additional investment of interest foregone in the enterprise each time such an asset was rebuilt.

Charging interest foregone to the depreciable asset, therefore, would accomplish three different things, as follows:

1. It would afford a more accurate costing of operations in which the asset was used.
2. It would permit the treatment of "Interest Foregone During Reconstruction" as an income and thereby would help to relieve the financial stress of reconstruction periods.
3. It would avoid a spurious capitalization of interest foregone costs.

If an asset were replaced at a higher cost with a consequent larger cost of interest foregone, the excess interest-foregone cost should be added to capital surplus.

THE EXPERIMENTAL CHARACTER OF REGULATION

It is not the purpose of this discussion to present an account of the positive and indispensable contributions of accounting to the process of regulation. The foregoing problems have been presented, not as typical of the role played by accounts but as illustrative of ways in which halting and uncertain accounting practice and theory have helped to keep regulation equally uncertain and tentative.

Another factor in the situation which has helped to keep regulation tentative and experimental is the wise refusal of the Supreme Court to give exclusive approval of any one theory of valuation. A different course by the court might well have led to a doctrinaire regulation running in much less flexible terms.

Still another factor which has made for uncertainty has been the wholly opportunistic policies of the utilities and the representatives of consumers. They have not hesitated to espouse one theory of valuation when prices were rising and an opposing theory when prices were falling.

Regulation has been highly experimental in fact even if it has not been so in the conscious actions of those who have administered it. The greatest factor in the preservation of its experimental character has been the fact that regulation has proved to be in practice something different from what it was thought to be by those who introduced it and from what was implicit in the public opinion which sanctioned it.

In the beginning it was generally assumed that the regulation of public utilities applied to a very small segment of our economy called the natural monopolies. Because of special conditions under which they operated, competition could not be depended upon to control those natural monopolies. Hence regulating commissions were set up to fix rates and protect consumers from exploitation while allowing the investors or owners a reasonable rate of return on their capital. The standard for the reasonable rate of return to be allowed, quite naturally, was drawn from the larger

economic area in which profits were still regulated by competition.

This conception of regulation was due to the fact that regulation was set up to apply to going enterprises with investments already made in operating assets. Practical experience, however, soon disclosed that the regulation of free enterprise capital in public utilities did not focus on the rate of return on investment. If regulation were liberal, that is, favorable to investors, capital tended to flow into the regulated enterprise until returns on it were comparable to those in competitive enterprise. If regulation were strict, and rates we set too low, the regulated industry was starved and stunted because capital went elsewhere. Consequently the focal point of regulation became the problem of determining the proper development of the regulated industry. This is a much more positive and constructive responsibility than is contained in the initial conception of regulation. It also is a problem which cannot be answered by an appeal to the competitive market.

Not only has public-utility regulation changed from a negative and restrictive outlook to one which is positive and constructive; at the same time it has been extended over more lines of activity. The early natural monopolies have given way to a broader conception of "businesses affected with a public interest." And more recently the question has been raised as to whether all big business is not affected with a public interest.

GOVERNMENT REGULATION IN GENERAL

The regulation of public utilities has been followed by many other forms of government regulation. All of these forms of regulation, in one respect at least, have followed the pattern set in the public-utility field. The logic of circumstances, implicit in the problems confronting them, has compelled those in charge of the regulation to move in the direction of more positive responsibilities and a more positive control. An examination of the discussions leading to the adoption of the Federal Reserve System in the first Wilson administration discloses that many of those who were supporting the change believed they were merely improving the machinery of a system of competitive control in the field of banking. Those in charge of the system have been slow to recognize or admit the positive character of their responsibility. Nevertheless, the administrative policies of a central bank do not subordinate themselves to the competitive market. The central bank is not primarily a money-making institution.

Government regulation of our economic system is not confined to the work of administrative boards and commissions. Anti-trust legislation adopted by congress and enforced by the courts exhibits a change of policy which is not unlike the trend in regulation by commissions. When the supreme court adopted the rule of reason by which it allowed good trusts to continue because they had not indulged in bad practices its action was a concession to the trend towards large scale business enterprise. It held that mere bigness was not a violation of the law even though the big enterprise had come to dominate the market which it served. This concession to current economic facts was made at the expense of the principle of market control. It received the sanction of popular opinion.

As a people, we are proud of the bigness of our economy which performs miracles of production every year. We are proud and jealous of the high standard of living which we enjoy. We associate the bigness of our economy and the abundance which it affords with the bigness of individual business organizations. And rightly so. Our present-day economy could not have been

achieved by the mere multiplication of little businesses.

If our robust economy bursts out of its harness (consisting of the rules of the game developed back in the horse and buggy period) we undertake to mend the break by putting in a stronger part—a stay chain for a broken leather tug. We prefer results to the preservation of a nice set of harness. We believe in progress anyway. Such is the spirit which lies back of our frequent resort to regulation.

THE DEPRESSION AND THE WAR

In the depression crisis of the last decade, the Federal government used its power and its credit to furnish relief on a large scale in order to prevent widespread suffering. This action had the support of a large majority of the people in spite of the fact that it reversed a long standing principle of basic law which forbade the use of public funds for the benefit of private individuals.

With a recurrence of such an emergency, the government will take similar action again. In adopting a program of social-security legislation the government has acknowledged its responsibility and has undertaken to forestall the necessity of again resorting to an outright dole. The general principle at stake is that if our economic system breaks down the government is responsible to take whatever emergency measures are necessary to protect the welfare of the people. This principle has been approved by the will of the people and is as much a part of our constitution as if it had been incorporated in the written document.

Social-security legislation is, therefore, another example of government interference in or regulation of economic affairs. It is understandable only in the light of a long period of development of numerous other forms of regulation.

When war broke out in Europe at the close of the 'thirties, it was a relatively simple adjustment for our government to shift its relief and "pump priming" expenditures into the channels of a preparedness program.

When we were catapulted into the war by the Japanese attack at Pearl Harbor, the people of the country were just about as nearly one hundred per cent behind the war effort as could ever be possible. With a popular president in office; with a background of depression experience in which people generally turned to the Federal government for leadership as well as economic assistance, and with an unprecedented unanimity of patriotic support to back it up, the government was able to organize and carry out a mobilization of manpower, materials, and productive resources never before equalled in any country. Taking advantage of its strategic position, the government did not compete with private interests in the traditional competitive market. It set up controls over the use of basic materials and thereby diverted the productive facilities of whole industries to war work. This virtual taking over of the nation's industrial plant was supplemented effectively by a system of rationing which limited still more rigidly private consumption.

The size and effectiveness of the armies we put in the field, the navy we put on the ocean, and the wealth of material with which they were supplied were not due solely to the courage and ingenuity of the fighting men, the know-how and energy of business men, and the skill and industry of industrial workers. The miracles of production, which so impressed other peoples of the world with the power of the United States, would not have been possible without a highly effective psychological mobilization.

This psychological mobilization was crystallized and solidified overnight by the sneak attack on Pearl Harbor. However,

its foundations go back to three quarters of a century of government regulation. They go back particularly to the dramatic early days of Franklin D. Roosevelt's first administration. The Federal government's role in the depression of the 'thirties, its shifts of expenditures from relief to a preparedness program, and its later conduct of the war were all involved in a single build up of psychological mobilization. Of course no one planned this sequence of major events. It was a fortunate but fortuitous combination of circumstances. In a very real sense the psychological mobilization was the foundation upon which the mobilizations of manpower and productive resources were built.

The cessation of hostilities brought immediate psychological demobilization with military and economic demobilization following closely in its wake. The immediate problem which faces us now is to take stock and find out just where the demobilization of our wartime economy leaves us. One would need to be very naive indeed to believe that removal of war-time controls automatically places us back in the simple, self-regulating, individualistic economic system from which we had been drifting away for several generations before the war came on.

INVENTORY OF ECONOMIC CONTROL

Our current economy shows not one but many forms of control over economic activities. In spite of its many failures, competition is still the largest single factor in the control of our economic affairs. However, the other agencies of control have developed at the expense of the competitive market and it continues to lose ground to them.

As was indicated earlier in this discussion, the principles of accounting and the practice of professional accountants have come to play a significant part in the guidance and control of business activities.

Government regulation is a factor in economic control which has grown rapidly. Its typical form is administrative control through state and federal boards and commissions. It includes also, however, regulatory legislation such as anti-trust laws and social-security legislation. It has shown a general trend from less to more positive control. It has two distinct aspects. One is concerned with the regulation of particular activities or particular areas of our economy. The other is concerned with responsibility for, or regulation of, the operation of our economy as a whole.

Another significant form of control in our present-day economy is the voluntary control by business exercised through trade associations. This form of control was temporarily elevated to a high place in the system by the N.I.R.A.

A form of control which is hard to appraise accurately is that exercised by the managements of business enterprises which have become so large and powerful that their operations are affected with a public interest. The way in which such managements exercise the economic power vested in them is a matter of vital public concern.

This inventory would be incomplete if it did not include also the power exercised by labor leaders through the collective action of organized labor. This power has been fostered by the Federal government as a parallel to the power of big business management. It has grown to the point of challenging the Federal government itself.

Finally, the management of large business enterprise is carried on under conditions which can be expected to shape the development of a professional attitude on the part of those who are responsible for it. Already we have moved a considerable distance in that direction since the time when the lack of any sense of social responsibility on the part of business management was characterized by that famous

dictum "the public be damned." The professional business school has become a regular feature of institutions of higher education. Such schools of business, however, can be counted upon to follow and to standardize the movement rather than to shape its development.

An unbiased appraisal of our present situation shows us an economy which is capable of a tremendous volume of production. Under modern conditions of production and exchange it tends to operate as a closely articulated organization as if it were a single vast machine. When it operates smoothly the output is large, but when it breaks down or is stopped the losses are equally large and soon bring hardship to large numbers of people.

What we need is an integrated system of dependable control which will keep our economic machine running smoothly, and that is what we do not have. Instead, we have a system of multiple agencies of control which often work at cross purposes and sometimes stop the machinery rather than help to keep it working. We cannot look to the competitive market for an integrated system of control. It was not devised to control the kind of economic machine we now have. Among all the agencies of control enumerated above it is the one which steadily is losing ground.

HIGGLING OF THE MARKET

In the free market economy, the higgling of the market, the bargaining between buyers and sellers, was what determined prices and kept the market functioning. The modern counterpart of higgling in the labor market is the negotiation of a new labor contract. When there is serious difficulty in reaching an agreement, this involves a strike which is a part of the higgling process duly recognized by law. It is the seller's freedom of choice to sell or not to sell. But whereas in the original market higgling kept the economic system going, in the modern version it leads to a stoppage of economic processes. And when the stoppage involves coal or steel or railroad transportation the effects of the stoppage are tragic. Under these circumstances, the need for some kind of machinery which will make possible the negotiation of a new contract while work goes on is becoming more and more imperative. If the government, acting in the interests of the general public, proposes compulsory arbitration, management protests against such an interference with the free enterprise system and labor raises the cry of involuntary servitude. The situation calls for intelligent cooperation on everybody's part in working out a constructive solution of the problem. Yet neither management nor labor has any suggestions to offer. Indeed, for the most part they do not recognize any responsibility. If they continue in this attitude and the problem continues to grow more critical, the government will in time impose an arbitrary, unilateral solution in the name of its responsibility for the economic welfare of the people.

The above described problem is typical of our current economy. A host of problems of the same general character head up in the problem of evolving an integrated system of overall control. We are learning much about the economic society in which we live, about the technique of managing big business, about accounting and statistical methods of control, about the operations of a credit system, and about many other things. The most effective method of solving both our particular problems and the problem of general control is to work them out together. What we need above everything else is to keep the problem of overall economic control upon a tentative and experimental basis as the problem of regulating public utilities has been kept. Our greatest danger lies in the possibility that unwise leadership or untoward circumstances may throw us into a doctrin-

aire and half-baked solution of the problem. When John L. Lewis seized upon a mine disaster as an excuse to throw his weight around in defiance of the Federal government, he was engaging in a dangerous practice. If the Federal government should throw its weight around and destroy the power of organized labor, it would impose a role of martyrdom on the labor group. Such action might well set the stage for the people to throw their weight around and that would be a real social catastrophe.

Western civilization is in the midst of a transition which is changing even the philosophical foundations of the law itself. We have fought through two world wars which are incidental features of the transition period. It is to the everlasting credit of the English-speaking democracies that, in the midst of so much stress and world confusion, they are still working along under governments of law.

Unfortunately we are involved in processes of change which run in terms broader than those in which we habitually think. Changes affect different peoples differently. Since those peoples do not think in terms broad enough to find a common ground, irreconcilable conflicts develop. Such is the character of the present conflict between the United States and Russia.

The Russians are engaged in trying to build the kind of society which they think is best suited to the utilization of a modern industrial system such as we have, and they are developing as rapidly as they can. Because of historical and social influences which do not affect us, they have elected to proceed by way of a dictatorial form of personal government and the application of a radical, doctrinaire method of social reform. But, granting the success of their experiment, they still have before them the whole task of building up the social machinery necessary to administer modern large scale processes of production and distribution. They have yet to build a regime of law along with the simpler task of developing an industrial plant.

We, in contrast to the Russians, have elected to proceed under a regime of law and to content ourselves with a slow, tentative, experimental process of evolution. If we can maintain continuously our government of law, and we have every prospect of doing so barring untoward accidents, then in another hundred years the Russians will be borrowing from us our machinery of social control just as assiduously as they now are borrowing the technology of industrial development.

If the English-speaking democracies can succeed in preserving their respective governments of law throughout the current period of cultural transition, they will have demonstrated a degree of cultural maturity not heretofore achieved. The advantages of such a process of orderly change under the constant rule of law are obvious. It saves those who must live through the process a great deal of hardship and also avoids much of the loss in social organization which is inherent in more violent forms of change. For example, a price system and a credit system are extremely valuable tools of social organization. They represent a peculiar and distinct combination of control and freedom which the human race could ill afford to lose. However, our price system developed in a situation which called for flexibility and adaptability in the social control of economic processes. Since that time we have developed a productive system which calls for steadiness and regularity of control rather than flexibility and adaptability. This inconsistency has given rise to numerous frictions. We already have made much progress in adapting our price system to the needs of the current situation, but it is a slow and complicated process. It is a problem which cannot be solved by a blind faith in traditions or by an equally blind faith in a process of radical reform.

It will be solved automatically, however, if we have the patience and the insight to work out gradually an integrated system of control adapted to the conditions under which we live and the ways in which we now think.

Students of the process of social change through which we are passing have been too prone to suggest solutions of our economic problems running in terms of some kind of personal control. If we work out the change under a continuing regime of law there will be no problem of translating our results from the terms of personal government into the terms of a government of law.

We have not yet learned enough about our current social problems to proceed with a constructive integration of control. However, we are justified in pointing out the fact that accounting is a connecting bond running through the different agencies of control enumerated at an earlier point in this discussion. It is the only one of those agencies, except the market, which brings to the problem a comprehensive body of relevant theory. Also it may be pointed out that through the decisions of regulating agencies, through the decisions of courts of law, and through the position of trusteeship which the law vests in the accounting profession, the principles of accounting are being absorbed into the law of the land. This process constitutes a suggestive parallel to the absorption of the law merchant into the common law of England in the Elizabethan period. Through that absorption of the law merchant into the common law the free market acquired its position as the focal center of economic organization among English-speaking peoples.

FEDERAL POWER COMMISSION ACCOUNTING

Among the many regulating bodies, the Federal Power Commission has made the most positive application of the accounting yardstick to public-utility regulation. In consequence it has been praised as having placed regulation upon a sound basis for the first time by its adoption of an accounting approach to the problem. By other critics it has been condemned for undermining free enterprise; for carrying on a program of "wiping out a substantial portion of the investment in public utility property as it now stands on the books;" and, for elevating accounting to the role of a new kind of economic system.

The distinctive policies which have called forth such emphatic views of approval and condemnation have been the commission's adherence to the original-cost or prudent-investment theory and its specific interpretations of the theory in setting up and administering the uniform set of accounts prescribed for power companies. It has set up as a basic concept the cost of an asset to the first owner who devoted it to public-utility service. It has required utilities to charge costs of assets in excess of the cost to the first user to an adjustment account and has reserved to itself control of the treatment of the adjustment account. Since the commission has the power to say when and to what degree the adjustment account shall be amortized, and whether the amortization shall be charged to expense or against profits, it retains a continuing accounting control over management of the utility.

One of the difficulties of regulation has been the crudeness of rate-making control. In setting rates for specific utilities, commissions have faced the necessity of forecasting the probable volume of business of the regulated company. If the actual volume of service rendered runs much above expectation profits are greatly increased. The technique of readjusting rates has been a somewhat unwieldy method of control.

The subterfuge involved in the Federal Power Commission's application of the already overworked cost principle is quite naturally irritating to accountants. It is

reminiscent of the many fictions by which the law has permitted evolution of the established machinery of social control. It does no more violence to the realities of the situation than, for example, the legal conception that a corporation is an individual person. However, the essential issue involved in the situation is the commission's continuing accounting control. It can allow profits with its right hand by the regulation of rates and can take them away with its left hand by its control over the treatment of account 100.5. Whether this two-fold power will receive the final verdict of public approval will depend upon the standard of equity with which it is applied. It is a matter of public policy which must be judged on its merits. It does not violate any sacred principle, accounting or otherwise. If regulation were so severe as to discourage private capital from entering the power industry it might be bad policy but it would not be a violation of principle. However, there is no evidence as yet of the flight of private capital from the field.

GENERAL CONCLUSIONS

The conclusions to be drawn from the foregoing discussion are relatively clear.

There is no separate solution of the problem of public-utility regulation. When we have worked out a generally integrated scheme of control over our economic affairs, it will cover public utilities along with other forms of business enterprise.

However, the public-utility field has been and still is an area of experimentation in which we are trying out techniques of social control.

Whatever the precise form of the system of integrated control which we shall evolve it is clear that accounting will play a vital part in it. Both the scheme of control and the role of accounts in it will be shaped in part by the intelligence and insight with which accountants and others approach the problems of cultural readjustment. As the problem of necessary integration takes form out of the conflict, complexity, and confusion which typify present day society, accounting will move toward a definitely more social point of view. It will be less dependent upon tradition and convention and will be a more logical and constructive organization of theory and techniques built around the functions served by accounts.

WANTED: MORE COST ACCOUNTING FOR GOVERNMENT

R. M. Mikesell

The past fifteen years have witnessed notable strides in the field of accounting for public funds and much of the progress has fallen in the present decade. A logical inference is that a large measure of this improvement is an outgrowth of the taxpayers' genuine concern over the expenditure of vast sums of public funds[1] and a widespread belief that substantial retrenchments on a voluntary basis may not be expected from the offices and agencies concerned; in some quarters expansion continues to be the order of the day. Recent budget requests of many state and local governments have assumed proportions of surprising magnitude, resulting largely, it must be admitted, from withdrawals of financial aid by the Federal government and from insistent public demands for more or better service, and from public-employee demands for standards of remuneration comparable to those enjoyed by persons in non-governmental employment. The law-making body of one midwestern state, sitting in the first quarter of 1947, found itself figuratively engulfed in a flood of bills calling for more public money, the requests covering practically the whole range of governmental activity from the township justice of the peace on one hand to departments and agencies of the state on the other. Unfortunately (in a relative sense, only) most of the improvement in governmental accounting has been confined to more general use of budgets for estimating future costs of governmental activity and to increased emphasis on determining legality and propriety of expenditures by audit of transaction either before or after consummation. These limitations, especially as applied to federal accounting, have been recognized by eminent authorities in the field of governmental accounting. Writing in The Accounting Review of April, 1942, a Treasury Department official made the following statement:

> The Government maintains accounts as an aid to administration, but at the present time they are of less assistance to the Governmental administrator than commercial accounts are to the manager of (a) commercial enterprise . . . . Some of the limitations of governmental account(ing) grow out of the fact that the principal purposes for which the accounts are used are to demonstrate that there has been no illegal use of public moneys; that government officers convert none to their own use; and that expenditures are restricted to the objects authorized by the Congress in the Appropriation acts.[2]

At about the same time a similar view was expressed by a former member of the American Institute of Accountants' Committee on Governmental Accounting. He said: " . . . the Comptroller General may, by law and his own interpretation thereof, question particular expenditures only on the basis of legality. He seems thereby effectively prevented from raising issues on the points of efficiency or economy."[3] While these comments were directed spe-

[1] "It was recently reported that the combined annual Federal, state and local taxes in one of the great states of the Middle West had reached the point where their sum is now equal to the assessed value of all property of every description in 44 of its 98 counties. And all of us know, I suppose, that the total of the Federal, state and local debt is far in excess of the value of all the known resources of this country." T. Coleman Andrews: "Advances in Governmental Accounting," The Accounting Review, Vol. XXII, No. 1, January, 1947, p. 27.

[2] Bartelt, E. F.: "The Role of Accounts in the Administration of the Federal Government," The Accounting Review, Vol. XVII, No. 2, p. 84, April, 1942.

[3] Hunter, Joel: "The Auditing Function in the Federal Government," The Accounting Review, Vol. XVII, No. 3, p. 227, July, 1942.

cifically at federal governmental accounting it is reasonably certain that their substance is closely applicable to governmental accounting in general, with exceptions in certain limited categories which will be mentioned later. Legality and propriety appear to be the keynotes of governmental accounting at whatever level pursued.

Only limited progress has been accomplished in what seems to be a potentially fruitful field of endeavor in relation to accounting for governmental expenditures. This is cost accounting, applied not merely to the semi-commercial phases of governmental activity, where some excellent results have been attained, but to the whole sphere of governmental service—clerical, administrative, executive, judicial, educational, public safety and welfare, or whatever other category of activity may seek and obtain public funds. Admittedly the opportunities for productive application of cost accounting appear definitely limited in some of the suggested fields, because of technical difficulties involved, but in others the possibilities for profitable endeavor seem worthy of major attention and effort. These comments do not overlook the fact that budgeting governmental appropriations by purposes and objects and recording expenditures in the same manner represent a form of cost accounting of no small value, but these classifications are of such general nature and so loosely related to units of value received that they afford only nominal measurements of efficiency and economy—of what the public actually received in return for the taxpayers' money.[4] Budget-making and fund-appropriating bodies have the two-fold obligation of deciding what services, and how much of each, the public needs and what should be paid for those services. Decisions on the first responsibility must continue to be reached largely on a subjective basis, and up to the present time the second question has been answered in much the same manner. Determination of unit costs as a basis for objective measurement and control of total governmental costs is urgently needed and appears to offer great promise for reducing government costs without impairing efficiency of government service and, perhaps, bringing actual improvement.

Failure to apply common principles of cost accounting more generally to costs of government seems to be attributable to one or more of a number of reasons. One of these, which probably has predominated in delaying more extensive use of cost accounting for government, is the widely recognized fact that the need for a given service has been the primary factor in determining its eligibility to financial support and the extent to which such support should be provided. Notable illustrations of this assertion may be found in expenditures for national defense in time of war, for public welfare in time of financial depression, and, to a lesser extent, in appropriations for education, public health and safety, and the general overhead costs of government; not that provisions for the latter have always been adequate but that unit costs, even if they had been ascertainable, would not have been the controlling factor. In the second place, the fundamentally general nature of many governmental operations seemingly has discouraged the application of unit-cost accounting to an even greater extent than prevails in business and industry, where the exigencies of

[4] "Now, the last field which I think we must cultivate more intensively . . . is that of the establishment of units of cost and units of performance . . . . But I do feel that until we have established more exact conceptions and units of performance, our great administrative and accounting and controlling system may prove to be largely an illusion." Beard, Charles A.: "The Role of Administration in Government," *The Work Unit in Federal Administration* (1937: Public Administration Service, Chicago, Illinois), pp. 2–3.

competition and pressure from labor unions are gradually compelling attention to unit-cost administration, in the broad sense of the word, as a device for promoting efficiency and economy. Among those who have had opportunity to observe, there is widespread belief that government personnel is used far from efficiently. In some government personnel systems an employee's organizational status is strongly affected by the amount of his responsibility measured largely in terms of how many other employees he supervises. While basically sound from a personnel standpoint, this policy definitely encourages "feather-bedding," which is hard to prove in the absence of definite standards for measuring employee performance.[5] In the third place, it must be recognized that the bulk of governmental accounting work is performed, or at least supervised, by personnel selected on the basis of considerations having little or no correlation with proficiency in accounting or even passing familiarity with the subject; this refers particularly to the many public positions involving responsibility for major accounting work, for which only age and citizenship or other superficial qualifications are prescribed. It is not reasonable to expect that personnel so selected should be able to make vital contributions to better accounting or even possess an aggressive interest in fostering and promoting such improvements. The voting public does not discriminate clearly about technical qualifications of those for whom it votes. Finally, not until the 1930's did the costs of government attain heights comparable to those which now prevail, and since that time public and legislative attention has been focused on controls for regulating and subsequently proving legality and propriety of expenditures, leaving slight opportunity for developing ways and means for measuring the efficiency and economy with which public funds have been used. Legislation concerning accounting for public funds has developed almost exclusively around the purposes for which they might be used and the means and methods for verifying propriety of use. The thinking of legislative bodies concerning use of public money seems to have been absorbed in consideration of legality and propriety, with no reference to ways of measuring efficiency in an objective manner. Budgets have been, and are continuing to be, accepted largely on the basis of general opinion concerning the needs of the requesting agency, the effectiveness of its "public relations" program, and the influence and persuasive powers of its advocates. What the agency received or spent in one year, although its operations may have been permeated with waste and inefficiency, continues to weigh heavily in deciding what it shall receive for another year.[6] Such practice tends to perpetuate and possibly encourage misuse of the taxpayers' money. Prior to the 1930 decade the ratio of public expenditures to national income was so low, and the extent of governmental activity so limited, that the need for accurate determination and subsequent control of unit costs had

[5] "When the government sets a fellow's salary, they always ask him how many people he's got working under him. It isn't like in business. In the government it seems like the more people you have working for you, the more money you make. So nobody wants to get rid of any of his staff." Attorney General Tom C. Clark, quoted in *Trends in Education—Industry Cooperation*, National Association of Manufacturers, New York, Vol. III, No. 2, February, 1947, p. 3.

[6] "If budget bureaus and budget officers were accustomed to think in terms of units of work and performance achieved in the past and to be achieved in the future, possibly relating them to man-hours, equipment hours, unit and overhead costs, and the like, the determination of the new budget could be handled on a much more realistic basis and with closer reference to known facts and reliable predictions, thereby eliminating a considerable part of the 'higgling' that in so many jurisdictions characterizes the annual get-to-gethers of the budget bureau and the departmental heads." William E. Mosher: "The Development of Work Units in Public Administration," *The Work Unit in Federal Administration*, Public Administration Service, Chicago, 1937, p. 7.

scarcely suggested itself to taxpayers, government officials or students of government; but those days are gone and "something needs to be done."[7]

Such applications of cost accounting as have been made to government have been restricted largely to activities or operations which are subject to reasonably exact identification and limitation and, therefore, to effective segregation of their transactions from those of other activities or operations carried on concurrently by the same agency, department or office of government. Leading examples of such institutions or activities are:

Schools
Hospitals
Public Works
Utility operation
Sewage disposal and sanitation
Ownership and operation of machinery and equipment
Street and highway repair and maintenance

Only a casual survey of the above list is needed to reveal that most of the operations cited have a high ratio of direct or special costs to general costs, thus readily lending themselves to determination of unit costs. Information derived from cost accounting procedures for such functions as those listed above are useful to governmental administrators for the following purposes:

1. Measuring efficiency with which the work is being done or has been done (preferably the former), and discovering methods for reducing costs or obtaining more efficient use of labor and materials.
2. Deciding whether proposed public works or other projects of the kinds listed above should be undertaken by the governmental unit itself, or performance obtained through contract with private sources.
3. In case of activities producing goods or services for sale to second parties or to other departments, determining a rate or price which will recover all legitimate costs of production, and produce any additional margin that may be deemed necessary to serve the purposes of the activity.

Conditions prevalent during the war years imposed severe restrictions upon the utilization of unit-cost data even for the activities referred to above, but with improvement in the available supply of labor and materials it is certain that progress will be resumed, and only active interest by taxpayers and the employment of more competent personnel are required to bring about real savings. Literature on cost accounting for schools, hospitals, etc., while not exactly abundant, may yet be found in sufficient quantity to be of material value to those interested in cost accounting for the operations mentioned.

On the contrary, relatively nothing has been written or done about unit costing for general government expenses. In most instances budgeting for such costs is still done on a basis that is far from scientific or exact. A certain degree of analysis and break-down is ordinarily required in budget request justifications, but rarely are these correlated with work programs reduced to terms of work units. That is, budgets for costs of administrative service are seldom stated in measurable terms of work to be performed in return for the amount of money requested. Concerning the Federal government a noted authority wrote in 1945 that

> Much of the emphasis in the regulations of the Bureau of the Budget on the preparation of future estimates is mechanical in nature .... Unit costs of overall government functions are wholly unknown, and generally applicable unit costs or unit work volumes thus far derived have been limited to such minor considerations as personnel units, voucher audits, and building-operation staffs.[8]

[7] "Cost accounting is a step in this direction (measurement of results) and holds great promise of future utility .... Borrowing the phraseology of the business world we need to know two things—the output and the cost of the output." Mabel L. Walker: "Municipal Expenditures," The Johns Hopkins Press, Baltimore, 1930, p. 110.

[8] Kohler, Eric L.: "Expenditure Controls in the United States Government," The Accounting Review, Vol. XX, No. 1, January, 1945, p. 32.

As suggested heretofore, failure to employ unit costs more extensively in budgeting governmental administrative funds may be accounted for to no small extent by lack of generally recognized and acceptable work units for measuring administrative performance. In small offices or departments the task of establishing and applying work units is greatly complicated by the variety of services rendered by the office or department and the consequent difficulty of standardizing the work done by the various employees. However, there is encouraging evidence that the nature of governmental administrative service does not entirely preclude the use of unit costs. The *Accountants' Handbook* asserts that "Cost Accounting can be applied to any department, institution, or utility of government."[9] This opinion is corroborated with reference to costs of overall government service by a writer on the work unit in Federal administration, who has observed that " . . . it has been demonstrated by those who are interested in working out the underlying philosophy of scientific management that even for supervisory and executive jobs certain indices have been devised that are significant from this point of view."[10]

More convincing even than the opinions of authorities is the fact that tangible progress has been reported in a number of cases in measuring what are commonly regarded as general costs. These include police protection and law enforcement, fire protection, operation of personnel systems, parks and recreation, public-health departments, non-institutional welfare, legal departments, and general regulatory activities. One writer has gone so far as to state certain basic principles which should be observed in establishment of work units.[11]

1. The unit must measure work accomplished, not merely effort put forth or time consumed. To deviate from this principle would mean toleration of a certain amount of inefficiency.
2. The unit must be definitely correlated with service performed and the volume of work units must be in some way controllable with respect to the effort expended and materials used.
3. The work unit must lend itself to ready and exact measurement and to clear definition of its attributes, in order that it may be widely used for comparison purposes. Unit costs should be of such nature and so clearly understood as to reduce to the lowest possible minimum the amount of "interpretation" required.

It is probably true that conditions have never been more favorable than at the present time for real progress in the field of governmental accounting. Faced with a gigantic public debt and high costs of current government activities, taxpayers and many government officials are actively interested in discovering how readjustment may be made.[12] Total demands for governmental service, exclusive of national defense and public relief, continue at a high peak while taxpayers clamor for lower taxes. Substantial reductions are promised by the action of the Congress and various other legislative bodies but much of this reduction will be accomplished by discontinuing some services, by curtailing others and, consequently, compelling increased efficiency in future use of

[9] *Accountants' Handbook*, Third Edition, W. A. Paton, Ed. (New York: The Ronald Press Company, 1943), p. 1340.

[10] Mosher, William E.: *op. cit.*, p. 5.

[11] Tiller, Carl W.: *Governmental Cost Accounting*, Municipal Finance Officers' Association of the United States and Canada (Chicago, 1940), p. 32.

[12] The Legislative Reorganization Act of 1946 directs the Comptroller General to make an expenditure analysis of each agency in the executive branch of the government which in the opinion of the Comptroller General will enable Congress to determine whether public funds have been economically and efficiently administered and expended. Section 206, "Expenditure Analyses by Comptroller General," Legislative Reorganization Act of 1946, Chapter 753—Public Law 601, August 2, 1946.

personnel and materials allowed. The real battle will be joined behind the scenes when taxpayers, budget making bodies, civic bodies, and commercial organizations come to grips with their government and begin to demand, or perhaps increase their demands, that one dollar spent for government service shall carry as much purchasing power as the same amount spent for private purposes. Cost accounting will be a powerful weapon in this battle, and in fact it is difficult to see how real progress can be made without it.

By whom or what means may greater use of cost accounting in government be fostered and brought to pass?

1. By increased interest on the part of taxpayers in electing qualified persons to office and in the real efficiency or economy with which tax money is spent. Some governmental offices now filled on an elective basis should be removed from that category and placed on an appointive basis thus providing greater opportunity for securing competent, qualified personnel.
2. Establishment of qualification standards for public offices requiring technical or specialized accounting knowledge or skill. This idea may be abhorrent in a democracy, where the intrinsic worth and ability of the common man is a cardinal belief, but the suggestion has undeniable merits.
3. Reorganizing governmental financial and accounting structures with more emphasis on specialized accounting, following the practice that has been found profitable for private enterprise. This should include creation of a department for performing all the accounting service of the governmental unit concerned and provision for so organizing governmental service that better analysis of costs may be obtained.[13] Because of the many other interests and considerations which would be involved in such a change, this type of reorganization is definitely a long term proposal.
4. Continued active interest by civic and commercial organizations in the subject of taxation and costs of government. Valuable contributions have already been made by chambers of commerce, taxpayers' associations, and other similar groups in analyzing and publicizing governmental costs; their efforts may be enhanced by reducing as many government costs as possible to measurable units, thus giving tangible bases for comparisons. The management of such groups is likely to be fully cognizant of the advantages of unit costs.
5. Auditing of governmental accounts by qualified public accountants would promote the development of cost accounting for government. Because of their opportunities for observing employment of cost accounting for private gain public accountants are well qualified to recommend ways and means by which similar practices could be introduced into government. Many governmental units have developed auditing staffs that are rendering splendid service, but because of the repetitive and specialized nature of their duties they lack the opportunity for wide observation enjoyed by the public accountant.
6. Increased interest and participation by professional accountants and accounting organizations in the affairs of government. This participation may take the form of special study groups or committees of accounting organizations and of public service by accountants as individuals. Some public offices requiring only part time or occasional service afford excellent opportunity for promoting better accounting in government, and the same is true to a lesser extent of membership on special committees of civic organizations. Such influences are far from revolutionary but are highly salutary because of their professional quality.

In summary, this essay stated initially, what practically every one knows, that government costs are large in amount and probably would continue so in the absence of remedial action by taxpayers and their representatives. Not only is government costing a great amount of money but there is convincing evidence that the taxpayer is not getting full value for what he pays.

[13] In 1931 the New Jersey Commission to Investigate County and Municipal Taxation and Expenditures recommended a State Division of Municipal Standards and Costs to compile information relating to local governments and to establish accounting systems therefor. *The Organization, Functions and Expenditures of Local Government in New Jersey*, The Committee to Investigate County and Municipal Taxation and Expenditures, 1931, pp. 269–270.

Costs of government may be controlled without reducing efficiency but this will require greater application of cost accounting principles. Excellent progress has been made in applying cost accounting to some governmental functions but so-called over-all costs of government are still managed largely by subjective methods. It has been argued that such costs are not susceptible to control by cost accounting methods, but this is refuted in a measure by the two-fold fact that business and industry are already measuring such costs on a unit basis, and that some governmental organizations have reported progress in that direction. Cost accounting for the general expenses of government may be expanded by recognizing it as a major project for future research and development and by concentrating upon its achievement as an instrumentality for getting better government at a lower price. Members of the accounting profession are in a favorable position to promote this aim, through their professional practice and in discharging their duties as citizens of the community.

THE ROLE OF ACCOUNTING IN THE TAXING PROCESS*

Carman G. Blough

Accounting as it is commonly understood is the art of recording, classifying, summarizing, and interpreting transactions and events which are, in part at least, of a financial character. The rôles which the art of accounting plays in taxation are both varied and important. Only the most elementary estimates of revenue needs can be made unless they are supported by comprehensive accounting classifications of expenditures by the taxing unit for a period of prior years together with similar classifications of the estimates of its current needs. It is not uncommon for tax assessors to base their conclusions with respect to the value of commercial and industrial buildings, equipment, and stock in trade upon information obtained as a result of the taxpayer's accounting process, and in the field of valuation of enterprises on a unit basis, such as in the assessment of railroads and public utilities, complete accounting analysis of the condition of the corporate enterprise and the results of its operations is essential to intelligent assessment. In controlling and reporting upon the collection and disposition of public revenues, accounting is, of course, a commonplace.

But it is in the field of income taxation, the revenues from which play such a dominant part in the financial programs of the Federal Government and of many of the states, that the rôle of accounting in the taxing process attains its greatest importance. Without accounting, the administration of an income-tax program would be impossible. At the same time it is in the field of income taxation that public taxing policy has its greatest impact upon business and thereby upon accounting, for to an ever-increasing extent tax considerations enter into the determination of business decisions which must, in turn, be reflected in the accounts.

The selection of income as a basis of taxation poses a variety of questions, the most important of which are of an accounting nature and involve accounting principles. What is income? How is income—or better, how are the elements of revenue and expense that determine income—to be allocated to time periods? These questions have broad economic, social, and philosophical implications, but their business or commercial answers are made in the language of accounts—stated in terms of the concepts and conventions of accounting.

In commercial practice, income is recognized as the gain or increase in assets which arises from business operations. Such gain is to be measured by the excess of the revenues derived from sales of goods or services over the expenses or costs incurred in obtaining such revenues. As business operations are continuous so are the processes by which revenues, expenses, and income arise. A final and complete determination of income may be made only when the business enterprise ultimately dissolves. However, tentative periodic measurements of income can be made by matching the elements of revenue arising during a particular period with the costs or expenses which are related to that revenue. The principles and procedures designed to allocate revenues fairly to fiscal periods and to match them with the expenses properly attributable to them make up a large proportion of accounting theory and practice. It is well recognized

* A paper presented at the annual meeting of the National Tax Association in Chicago, June 6, 1946.

in accounting and commercial practice that such allocations and matchings are based on estimates and may require subsequent adjustment, modification, or correction, but it is important to note that such subsequent changes are the result of being able to substitute facts for estimates and are not based upon changes in accounting procedures.

Accounting concepts recognize that there are various acceptable procedures for the allocation of revenues and expenses in the measurement of income, and that there may be a different pattern of periodic income when different methods are used. For example, depreciation may be allocated on the straight-line basis, the fixed-percentage on diminishing-balances basis, the sinking-fund basis, the units-of-production basis, etc., and inventory costs may be allocated on the first-in-first-out basis, the last-in-first-out basis, or the average-cost basis. It should be observed, however, that these concepts do not approve whimsical shifts from one method to another. Consistency in the application of a method is itself a basic accounting principle. Whatever alternative method is selected, the sum of the annual incomes over the life of the enterprise will always be the same. A greater income of one year will be offset by a smaller income of a later period if one method is used, whereas a smaller earlier income would be offset by a larger later income under another.

TAX LAWS AND ACCOUNTING CONCEPTS

It is within the framework of business practice and accounting convention that tax laws and tax rules must be put into effect. Thus, to the extent that concepts and conventions of income taxation reflect or may be easily reconciled with accounting principles, they are commonly understood and accepted by the business community. To the extent that other concepts and conventions prevail, tax rules and laws are found to be novel and unrealistic in terms of common commercial practice and experience, and those accustomed to the usual procedures of business are confused and resentful. The legislative and judicial history of income taxation is full of conflicts between those forces which strive to narrow the area of difference between accounting and tax concepts of income and income measurement and those which attempt to inject into the tax program procedures and objectives which are foreign to common business practice and produce results which appear to the taxpayer to be both capricious and unreasonable.

A forerunner of the present tax law, the Corporation Excise Tax of 1909, provided for the measurement of taxable income in terms of cash receipts and cash disbursements as defined by "income received" and "expenses actually paid." The 1913 Act provided the same basis of income measurement. These laws made no provision for matching revenues with their related costs, but it was soon recognized that even though a "cash" basis of income measurement may be convenient for tax assessment and collection, in a modern economic society it is generally not realistic—it is not descriptive of the common modern business practice. The Revenue Act of 1916 gave statutory recognition to this fact and provided that other bases of income measurement are appropriate. The terms of that Act were permissive. A taxpayer not on a cash basis could make a tax return on the basis employed in its accounts unless such basis "does not clearly reflect its income." As interpreted by the Supreme Court,[1] the purpose of that feature of the 1916 Act "was to enable taxpayers to keep their books and make their returns according to scientific accounting principles, by charging against income earned during the taxable period, the expenses incurred in

[1] *U.S.* v. *Anderson.*

and properly attributable to the process of earning income during that period. . . ."

The present mandate that net income be computed according to the method of accounting regularly employed by the taxpayer was first given in the Revenue Act of 1918. The language of that Act is contained in later Revenue Acts and is repeated in sections 41, 42, and 43 of the Internal Revenue Code. The Code states:

(Section 41) The net income shall be computed upon the basis of the taxpayer's annual accounting period . . . in accordance with the method of accounting regularly employed in keeping the books of such taxpayer; but if no such method of accounting has been so employed, or if the method employed does not clearly reflect the income, the computation shall be made in accordance with such method as in the opinion of the Commissioner does clearly reflect the income. . . ."

(Section 42) (a) General Rule—The amount of all items of gross income shall be included in the gross income for the taxable year in which received by the taxpayer, unless, under methods of accounting permitted under section 41, any such amounts are to be properly accounted for as of a different period . . . .

(Section 43) The deductions and credits . . . provided for in this chapter shall be taken for the taxable year in which "paid or accrued," or "paid or incurred," dependent upon the method of accounting upon the basis of which the net income is computed, unless in order to clearly reflect the income the deductions or credits should be taken as of a different period. . . .

These provisions of the tax law seem to provide an adequate basis for a reasonable and consistent measurement of income and the equitable assessment and collection of taxes upon such income. Moreover, they indicate that generally accepted accounting principles and practices that are regularly employed should be recognized as proper for the determination of income for tax purposes. However, the administration of the tax law has produced some rather weird results. On the one hand, taxpayers who have consistently used a cash basis of income determination have been required, for tax purposes, to take deductions for expenses on an accrual basis; for example, deductions for insurance-premium payments have been required to be spread over the life of the insurance policy and a bonus payment required to obtain a mortgage loan has had to be spread over the life of the loan even though the taxpayer's accounts and tax returns were on the cash basis. On the other hand, persons keeping their accounts on the accrual basis have been required to report receipts as income on a cash basis; for example, one who contracts to perform future services by making sales of coupon books has been required, for tax purposes, to report as income the entire proceeds from those contracts in the period in which the coupons are sold, and advance rentals have been held to be income in the year of their receipt notwithstanding the fact that the taxpayer's accounts and tax returns were on the accrual basis.

ACCOUNTING PRACTICES AND TAX ADMINISTRATION

It is, of course, to be recognized that in some areas accounting practices do not provide a simple basis which would make possible the convenient administration of a tax program. This is particularly true with respect to those expenses or losses which are provided for in advance of their final determination, such as provisions for warranties or recognition of losses on securities or other investments before their disposal is consummated. However, in relation to the whole field of accounting and taxation, such areas are relatively unimportant and should not be given undue emphasis. When tax rates vary from year to year and when "ability to pay" is reflected in graduated tax rates, the timing of the recognition of revenues and expenses might, of course, make important differences in the amount of taxes to be payable if income could be readily shifted between years. Other reasons also impel taxing

authorities to seek positive criteria whereby revenues may be taxed as soon as possible and deductions delayed as long as they can be. For example, insolvency or bankruptcy may prevent or defeat tax collections if such collections are postponed until after the cash has been received, or a statute of limitation or a doctrine of estoppel may provide undue advantages if tax assessments are deferred. The force of these considerations in the establishment of a tax program is generally recognized, but it frequently appears that exaggerated importance is given to this line of argument in the determination of the tax assessment of a particular period. Such emphasis may increase the tax collections of a single year, but year-in and year-out will result in little advantage to the taxing authority. Tax administrators would do well to recognize that taxation, like business, is a "going concern" and that *a single separate tax period is not the climax and end of the taxing process.* Why, for example, should so much of the time of taxpayers and taxing officials be taken up by revisions of depreciation rates? If a corporate management fixes a depreciation schedule based upon rates that are within the realm of reason and follows it consistently what gain is there to the taxing authority to require a different rate for tax purposes? As a matter of fact it is probably safe to assert that the Federal Government has received millions of dollars less revenue over the past decade because of the enthusiasm of its agents for reducing depreciation rates during the 1930's. The wheel of fortune is uncertain and no one is foresighted enough to determine what procedures of allocating revenues and expenses to fiscal periods will, in the long run, produce the greatest revenues to the taxing authority. Then why confuse and complicate the taxing process and multiply the accounting problems of business by trying to do so?

Because of the special rules for the allocation of revenues and expenses for tax purposes many business transactions are timed with a view to obtaining the best tax results and many transactions that would be highly desirable from an economic or social point of view are never consummated because of the tax effects. Sound public policy should minimize the influence of the tax laws over the ordinary conduct of business. Certainly the recognition of accepted accounting procedures as a basis for allocation of income would not remove all of the barriers to desirable commercial transactions but there are various ways in which it would have that effect to a significant extent.

Accounting is a practical art. Within its utilitarian framework there is ample room for the adjustments and modifications necessary to provide a reconciliation of the concepts and procedures of the determination of annual income for accounting purposes with the principle of measurement required for an effective administration of a tax program. Similarly, there should be room in the administration of a tax program which will permit the adjustment or modification of tax concepts and procedures to reconcile with sound business practice. This is not a novel idea. Such reconciliations have been made from time to time. For example, income from sales on account may now be determined in the light of expected losses from uncollectible accounts and inventory costs may be allocated upon a last-in, first-out basis. Much of the inequity resulting from the divergence of tax rules and accounting principles has been removed by the carry-forward and carry-back provisions of the present Federal tax law, but it should also be recognized that these provisions have also removed many of the reasons which legislators, courts and taxing officials relied upon to justify their advocacy of such deviations.

SOME REQUIREMENTS OF A SOUND TAX PROGRAM

By law and by precedent the taxation of income cannot avoid a dependence upon accounting—upon accounting concepts and procedures. From a business view, it is unfortunate that so many of the legislators and judges were not, and are not, more thoroughly acquainted with commercial practice and with the accepted accounting procedures for recording business transactions and events. Business generally recognizes the need for, and the importance of, a sound tax program. But to avoid an unwarranted burden upon the taxpayer, both from the standpoint of the tax to be assessed and the cost of maintaining useful tax and accounting records, that program should permit a common understanding of its concepts and those concepts should reflect the principles and procedures used by the economic community to which the program is to apply. Corporate investors and the public generally are confused by the anomalous situation of a corporation reporting substantial net income to its investors but being subject to no income tax, or reporting a net loss while at the same time being required to pay a substantial income tax. Time was when the keeping of two sets of books was viewed with alarm as a breach of business morality, but the ever increasing divergence between tax accounting, as required by our income-tax laws, and generally accepted accounting principles, as required for the presentation of financial data to investors and creditors, has made multiple records a necessity. The economic waste inherent in such procedures is, in itself, justification for serious study to determine whether they are really necessary costs of the taxing process, but when, in addition, they lead to confusion, misunderstanding, and taxpayer resentment and resistance, they are indeed worthy of an exhaustive effort toward their elimination.

It is to be hoped that the future will bring intelligent and thorough-going revisions of many of the present tax laws which will permit a material narrowing of the areas of difference between tax and accounting concepts, will permit the establishment of a common and consistent basis for a tax program, and will permit variations in governmental revenues to be made from time to time by changing the tax rates only.

These objectives warrant thoughtful consideration. Solutions to the social and economic problems of our time are not facilitated when the public confusion and misunderstanding of the nature of business operations and the purpose of tax rules and regulations make possible the publicity given such charges as "the government is paying to break the strike," "the tax law makes the public subsidize business to the detriment of labor," etc., etc. Part of that confusion is understandable. Tax laws, regulations, and decisions providing new concepts, changed procedures, and variations in interpretations flow out in constantly increasing volume. The income-tax program has been an ever-changing patchwork embroidered in patterns designed to symbolize the economic, social, or financial philosophies of the moment. It is time to develop an understandable and a consistent tax structure realistically integrated to modern commercial practice. The principles and procedures of accounting have been molded through the years properly to reflect the results of business as it is done. Only to the extent that they are recognized by the tax laws and regulations can there be hope for reconciliation between income taxation and business practice and a removal of the major sources of irritation and resentment by businessmen toward income taxes and their administration.

PRESENT-DAY AUDIT TECHNIQUE

Roy Andreae

In approaching the subject of present-day audit technique, the matters which will be discussed will be confined to those applicable to an examination of financial statements wherein the public accountant's responsibility is limited to expressing his opinion of a balance sheet and income statement to be used for purposes of general publication, as distinct from the more detailed examination incidental to the verification of recorded receipts and disbursements or other individual transactions for the purpose of establishing their propriety and authenticity.

A realistic concept of audit technique is generally acquired through basic scholastic training in the technical procedures of conducting an audit, careful study, and intensive research, supplemented by intelligent application of academic training to the situations encountered when this knowledge is put to the test in actual business practice. However, the technical knowledge obtained by study and actual experience will lack full effectiveness unless coupled with the indispensable exercise of imagination, alertness, vision, and common sense, as may be exemplified by the following audit experiences.

(1) During the course of the auditing tests applied in the examination of an inventory the senior in charge noted that an unusual amount of scrap resulted from a certain stamping operation. His curiosity was aroused to the extent that he decided to resolve his doubts by pursuing his inquiries further. He visited the department in which the process in question was operating and observed that the method of staggering the pattern for stamping the sheet left considerable intervening metal. He obtained the dimensions of the sheet and a blueprint of the stamping pattern and proceeded with a drawing compass to experiment in rearranging the pattern with a view to making greater productive use of the metal and consequently improving the yield over the blueprint specifications. His alertness and imagination were well rewarded, as his inquiries led to the development of a stamping pattern which enabled the company to obtain an additional disc from each sheet and thereby effect a substantial economy.

(2) During the initial examination of a very large corporation, the customary inquiries made as to the effectiveness of the system of internal control indicated that the company had adopted all possible effective measures and had carried them almost to the point of exaggeration. However, at the conclusion of this phase of the work a simple question was asked relative to the procedures surrounding the bank reconciliations. It was disclosed that the bank reconciliations involving many hundred active accounts were effected by a special internal auditing department entirely independent of the treasurer's department. The bank statements and canceled checks were exclusively under control of this department and its reconciliation process apparently included all generally recognized audit steps—until the question was asked as to whether the reconciliation balances were agreed with the relative balances in the general ledger. The answer was in the affirmative, but further inquiry disclosed that these balances were obtained by the internal audit department through telephone communication with the treasurer's department, which department, in turn, obtained the amounts from the general-ledger department. Obviously, this one divergence from proper internal control

might conceivably have furnished opportunity for manipulations despite the strict adherence to all other audit procedures. This weakness was removed when instructions were issued to the internal audit department to furnish future bank reconciliations to the comptroller of the company, who would attend to agreeing them with the relative balances in the controlling accounts.

(3) A newly organized company engaged in the manufacture of a commonly and extensively used article involving, however, an entirely new conception of a certain mechanical principle, had the satisfaction of having the article immediately accepted by the public, and a very substantial volume of sales was effected within a few months after the company was organized. The product was sold with a guarantee that if found defective within a period of several years it could be returned for reconditioning or replacement without charge. In the initial examination of the accounts of this company, undertaken a few months after its organization, one of the main accounting points was the amount to be provided for the possible cost and expenses which might be incurred under the guarantee. In view of the short period of operations and consequent lack of experience, no reliable basis for providing a reserve existed. The audit steps usually taken to determine the volume of returns indicated only a negligible quantity, although actually millions of the articles were in the hands of the public. The situation was further complicated because the fact that the company sold through jobbers to thousands of retail establishments, both large and small, made it likely that there might be a substantial delay between the time a defective item was returned to the retail merchant and the time the company received notice of the return. As an extension of the customary audit procedures, it was decided, and the company agreed, that a personal visit to a selected number of important and widespread distributors should be made by representatives of the auditor in order to gain first-hand information as to the acceptance by the public of the article, and the extent of returns, if any. As a result of this extended investigation, a more satisfactory appraisal of the situation was obtained than would have been possible had only the usual auditing procedures been followed.

The American Institute has been influential in the development of present-day audit techniques through the bulletins issued by its Committee on Audit Procedure. The first of these bulletins dealt with certain extensions to audit procedures, particularly those relating to the examination of inventories and receivables, and subsequent bulletins have been devoted for the most part to audit questions arising from the financial and social problems incident to a changing economy and to the war. These latter bulletins were issued at appropriate times to meet transitory conditions and generally are no longer especially pertinent. The bulletin on examination of inventories and receivables is probably the most important because of its continuing significance. When these extended audit procedures were applied in actual practice, certain difficulties were encountered which prohibited strict compliance with the spirit of their requirements if one hoped to remain in a zone of reason and practicability.

INVENTORY QUANTITIES

The bulletin requires that the public accountant be present during the taking of the physical inventory in order to observe the procedures followed and to have physical tests of inventory quantities made under his supervision. No serious problems arise in the case of moderate-sized businesses whose inventories consist of easily recognizable, standard materials stored within the confines of the plant or

otherwise conveniently located.

However, complications are encountered when the required procedures have to be applied to large corporations whose operations are carried out in widely scattered plants and distributing branches in this country, as well as abroad, and whose inventories comprise not only standard materials, but a variety of highly technical products. Obviously, it would be unreasonable to expect the auditor's representatives to visit all these locations, as the expense to the business would not be commensurate with the benefit derived. In these circumstances, in order to reach a conclusion as to how extensive the observance of physical inventories should be, one must first possess that important prerequisite to all effective auditing techniques—an intimate knowledge of the nature of the company's operations and a thorough understanding of its system of internal accounting control, particularly regarding the degree of care exercised in recording book inventory transactions and the effectiveness of the methods followed to train employees in the taking and compiling of physical inventories. Also, a study should be made of the locations involved and of the nature, quantity, and dollar volume of the stocks at each location. Reliable data of this nature may usually be obtained either from the compilation of physical inventories for previous periods, from book inventories, or from statistical records.

Only after these inquiries have been made and the required information has been obtained may one be in a position to reach a decision as to what locations should be visited and the extent to which the stocks should be subjected to inventory observation. In arriving at this decision, the auditor would be influenced by his desire to obtain a representative coverage of locations, a diversification of inventory stocks, and a relatively important dollar value of the total inventories. In subsequent examinations the individual plants and branches selected for inventory observation should be rotated so that over a period of years all of the company's places of business are visited; and this rotation should be accomplished in such a manner as to insure that a maximum amount of dollar value of inventories has been subjected to the required tests at each examination. It is not necessary that in all locations selected for visit the tests of inventory quantities should be equally comprehensive; the nature, volume and dollar value of the stocks will govern this decision.

If the experience gained through inventory observations and studies of procedures at the locations visited indicate that at these locations the procedures are consistent with the programs of the home office, the auditor may reasonably assume that at locations not visited, or where the inventory observation is limited to a relatively small number of items, the procedures followed are also consistent with the head office programs. The reports and other data submitted by the plants and branches not visited may then be considered sufficiently reliable to accept the figures after applying the usual audit tests in addition to the routine observation of the physical inventory-taking.

The auditor does not qualify as an expert in determining the quality of merchandise, nor is he competent to pass upon its grading and classification. Normally he is compelled to rely upon the employees of a company for identification of many technical items included in the inventory, so that his observation of the inventory-taking is largely concerned with the procedures employed in its compilation. He can also satisfy himself regarding the accuracy of the recorded number of units, and the weight or measurement of selected items, and by judicious questioning of employees can form an opinion relative to the reasonableness of the descriptions.

In a number of industries, however, a substantial portion of the inventories is not readily susceptible to definitely accurate count, weight, or measurement. For instance, a substantial portion of steel companies' inventories may be represented by ore, scrap, coal, coke, and the like, stored in outside stock piles of irregular shape and generally massive in size. It has been found that company employees whose duties and experience should make them competent to form reasonable estimates have been unable to agree among themselves regarding the tonnage involved in stock piles of this nature, even after various processes of measurement have been applied.

Difficulties in determining quantities are also encountered in industries such as packing houses, in which meats in cure are submerged in brine or encased in salt; the oil industry, in which processes of distillation and storage facilities make observation practically impossible; or the chemical industry, in which certain processes involve the submerging of materials in water or other liquid chemicals. Again, one frequently encounters stocks which are packaged in nontransparent containers such as cans, cartons, wooden boxes, or bags—the description of the stock imprinted on the container furnishing the only information regarding the nature of the stocks. Although packaged stocks may be sampled by the random opening of containers, for practical reasons this procedure is extremely limited.

In all these circumstances, the auditor by observation obtains some assurance that certain stocks actually exist, together with a rough comprehension of their volume. This assurance will be reinforced if dependable detailed book records are maintained for such materials, since these records will provide a means of test-checking the recorded quantities. These test-checks for selected periods or, if circumstances warrant, for the entire year, should be applied more extensively than when the nature of the inventories is more susceptible to physical check and should include an analysis of the production and purchase records, since these are original sources for compiling book inventories. The stock movements should be further test-checked by reference to the underlying documents supporting the additions to and deductions from the book inventories, supplemented by inquiries as to methods followed in recognizing possible shrinkages and overages resulting from processing, action of the elements, or other causes. A study of yields, when production formulae are used as a test of operating efficiency, will serve as an advantageous check of the recorded quantities withdrawn from raw material stocks which, in turn, will have an important bearing on the reasonableness of the book inventories.

Although there is no question as to the advantages accruing from observing the taking of physical inventories, it should be emphasized that although possession of stocks has been established with some degree of finality through observation, the actual ownership is not determined through this procedure. In the case of real property, ownership may be reasonably established through deeds, guaranty policies, and other evidences, but no such documents are available to establish definitely the ownership of chattels, in which category inventories fall. The complementary audit steps such as a study of purchases, production, sales, gross profit margins, and other statistical data should indicate whether or not the final inventory valuation is reasonable; if assurance of reasonableness has been gained, it follows that the ownership of the stocks has likewise been fairly established.

The auditor, during the course of his examination, through discussions, observation, and study of the accounts, will be-

come generally acquainted with a company's manufacturing processes, products, and business activities. Although he may be satisfied as to the reasonableness of the inventory valuation, the composition of the final figures should be studied from various other angles. This study should include a review of the final figures from the standpoint of their fitting into the historical, as well as the present, trend of an enterprise's normal business; that is, the relationship of manufacturing stocks and supplies to their past and immediate consumption and the anticipated turnover of finished products as compared with the stocks on hand. The possible implications of changing styles, improved or modernized products, or the whims of the ultimate consumers must also be given consideration to determine that the inventory is liquid and that it may be disposed of at prices commensurate with the inventory values. Although valuable information concerning these features can be obtained by a study of inventory statistics, the conclusions reached should be discussed with key manufacturing and sales employees, as well as with minor employees who may possibly develop further pertinent information not obtained from key employees.

CONFIRMATON OF RECEIVABLES

With respect to the extended audit procedures relative to independent confirmation of accounts receivable, the Institute bulletins, by using the expression "when practical and reasonable," leave a certain amount of leeway in the application of the procedure to receivables of companies whose aggregate balance is composed of a large number of relatively small individual balances. However, the fact still remains that if the elements of time and cost are ignored it may be argued that the procedure is practicable and reasonable under any set of circumstances. When a mass of detail is involved, the clerical staff required to handle the transactions is necessarily large and there is developed a more complete division of duties among the various employees than if the clerical staff were smaller; the system of internal control is accordingly strengthened. Under these conditions it would seem that the circularization of receivables may be limited to a small percentage of volume and amount and still remain within the bounds of practicability and reason.

Recent experiences have proved that some companies are not complying with requests for confirmation because they wish to relieve their already burdened clerical staffs from handling additional work, or they may be unable to confirm because of the lack of a central clearing point for such information. The latter condition arises particularly in the case of railroads, chain stores, and other types of businesses whose operations are to a large extent decentralized. However, frequently the recipient advises by form letter or otherwise that it is impracticable to comply with the confirmation request. In these cases it would appear to be justifiable for one to assume that if a trade relationship did not exist the reply would so state and that, therefore, although the amount of the account has not been confirmed by the debtor, a trade relationship has been acknowledged. In the case of negative confirmations, one may be reasonably assured of the correctness of the account in the absence of a reply from the debtor; but when no replies have been received to a positive confirmation even after second requests, one is left with a feeling of uneasiness since direct confirmation by a debtor should be the best proof of the validity of an account. In the event that a customer or other debtor does not confirm the balance, the fact should be called to the attention of an official of the client so that the matter may be followed up and

the manner of the disposition of the balance determined.

Regardless of the satisfactory or unsatisfactory results obtained from independent confirmations, the other long-recognized and effective audit procedures, such as the tracing of collections, examination of sales orders and shipping advices, and the usual arithmetical tests, must be applied—with particular thoroughness to accounts selected for confirmation as to which differences are indicated by the debtor or with respect to which no confirmation has been returned. When this has been done the auditor has gained some assurance as to the validity of the balances despite lack of confirmation by the customer. In the last analysis the confirmation of accounts receivable is only complementary to the other audit tests and checks carried out, but it may also have the added advantage of more promptly detecting the existence of any irregular transactions.

CHARGES TO SPECIAL RESERVES

A particularly pertinent audit problem at the moment and one which may entail technique beyond presently required procedures relates to the review of postwar cost and expenses to determine whether they are proper charges to special reserves provided out of the income of the war years. In general, these costs will fall into broad categories depending upon the nature of the business during, as well as after, the war period, and the dividing line between those attributable to conditions arising out of the war and those applicable to the production and sale of goods and services during the period of report may be somewhat debatable. The propriety of these special charges in the first instance will no doubt be determined in accordance with the best judgment of management. However, with profits adversely affected by the hiatus of the reconversion period, strikes, OPA regulations, and other present business problems, the judgment of management may be influenced when it comes to distinguishing fairly between war costs and costs applicable to the current period. Whether or not that judgment has been influenced may not be immediately ascertainable, but the possibility of distortion because too liberal a view has been adopted will call for more than ordinary care in the review of these transactions.

At the outset an analysis should be prepared of the major expenditures charged to the reserves or surplus, including complete descriptions of their nature, substantiated by the usual audit testing and sampling. It will probably be found that many of these outlays are similar in nature to the type of expenditures any company incurs in the conduct of its peacetime business as, for instance, the cost of maintenance and repairs and rehabilitation of facilities or the losses arising from lapses in productive activities because of the ever-changing cycle of improved or new products. The relationship between the normal ratios of these expenditures as compared with the ratio of charges against current production during the period in which postwar reserves are utilized will have to be carefully considered; that is, the historical trend of the accounts concerned should be compared with the related conditions of the year under review. This comparison may indicate a curtailment or an exaggeration of the charges against current production in relation to the normal ratios indicated by past experience, in which case further inquiries should be directed toward obtaining an adequate explanation for the inconsistency.

In the case of the larger and well-organized companies, the directors or executive committee generally authorize and approve large outlays, and discussions of proposed postwar expenditures, such as the

cost of reconverting plant facilities to peacetime use or other substantial outlays of this nature, together with relative information, will usually be found in the minutes, followed by a formal authorization to proceed with the work. A study of the information contained in the resolutions should furnish the auditor with a knowledge of the factors which influenced the directors in reaching their decisions, as well as an indication as to how much, if any, of the expenditure is related to normal needs or anticipated expansion of the business.

In determining the allocation of postwar costs and expenses, substantial reliance must be placed upon the judgment of top management, but since the decisions of management are likely to some extent to be based on generalizations and on information compiled under the direction of key employees, the auditor should also discuss the question with these employees. Frequently information not available from the records is obtained from such sources because of the close connection of such employees with the realities of the situation.

INTERIM EXAMINATIONS

A fairly recent development in the technique of the examination of financial statements is the expansion of interim work as compared with the amount undertaken a few years ago. In addition to alleviating the extreme pressure under which public accountants and the clerical staffs of their clients were required to work during the annual closing of accounts, interim work has many other practical advantages. Interim work should be undertaken at a time when the members of the client's staff are not concerned with periodical closings of the accounts, so that as much assistance as possible may be obtained from them in connection with the preparation of audit schedules and the presentation of such documents as may be required to substantiate transactions selected for review. Because of the interim work, the auditor has an advance opportunity of becoming acquainted with problems arising during the year, and by relieving the pressure usually encountered toward the close of a financial examination he has more time to apply himself calmly to a broad consideration of the final figures and the important phases of the accounts than when still immersed in a volume of last-minute detail.

Interim work need not be confined to specific balance-sheet or operating accounts, as it has been found under certain circumstances to be a practicable and reasonable audit procedure to make a final examination of branch, plant, or even subsidiary company accounts, at a date other than the close of the year. Interim work has to be carefully considered so as to avoid duplication, and the extent to which it may be undertaken will depend largely upon the effectiveness of the accounting and internal control system and the degree to which the bookkeeping functions are centralized or decentralized. A few brief examples of interim work may be of interest.

(1) The usual year-end cash verification may be undertaken at an interim date but preferably not more than two or three months in advance of the annual closing. At the year-end, provided the interim examination was brought to a satisfactory conclusion, it will only be necessary to review the company's own bank reconciliation, clear the outstanding checks, test the arithmetical accuracy of the reconciliations, and obtain independent confirmations of the balances from the banks.

(2) Interim work on accounts receivable would include the independent request for confirmation from debtors, checking of trial balances, tabulation and review of delinquent accounts, and the usual test-checks applied to the transactions in the individual customers' and controlling accounts. An early confirmation of the balances is particularly advantageous, because it gives ample time to receive and review the returns and send out second requests when needed before the com-

pletion of the year-end examination. At the year-end the work to be undertaken would consist of an analysis and review of the transactions in the controlling account from the date of the interim examination to the date of reporting, coupled with a further inquiry regarding the status of delinquencies, a review of larger accounts of current origin, and a limited test-check of the detailed trial balance against the relative ledgers.

(3) Physical inventories are taken regularly by many companies at a date prior to the close of the fiscal year. It is then possible for the auditor to carry out well in advance of the year end not only the observation of the physical inventory-taking, but also practically all other desirable inventory-audit procedures. After the physical inventories have been adjusted at the year end for the transactions of the intervening period, the only further work needed would be an analysis of the entries in the controlling accounts subsequent to the date of the physical inventory, a test-check of the transactions recorded in the control accounts, together with inquiries to determine that there had been no important price fluctuations since the physical inventory date.

(4) Property accounts are particularly adaptable to interim audit procedures in that this work may be carried out with complete finality, that is, without subsequent review of transactions previously examined. When a thorough check has been made of the property transactions up to the interim date, the subsequent changes in these accounts to the date of reporting need be reviewed only to the extent of determining that the major items comprise proper capital additions or deductions. If reliance can be placed on the earlier transactions, this review should entail a certain amount of detail checking, but not necessarily to the extent applied in the interim period.

In addition to disposing of a great volume of the detail work incidental to the year-end examination, other more important phases of the audit may be given early attention at the time when interim work is undertaken. The auditor will have the opportunity of gathering advance information on some of the salient features which will relate to the year-end accounts, such as the probable size of the year-end inventories, volume of business and prospective earnings, the necessity for the establishment or adjustment of reserves and the status of federal income taxes, as well as other matters which may require consideration in reporting on the accounts. In many instances financial transactions are supported by voluminous and complicated contracts which have to be studied carefully in order to obtain a proper understanding of the matters involved. Corporate minutes are the source of valuable information relating to property additions, bonus arrangements, and other management decisions having an important bearing on the accounts and will furnish the auditor a valuable preliminary background of some of the more important financial transactions of the year.

ACCOUNTING MACHINES

While the methods of record-keeping have little, if any, effect upon the basic principles of auditing, the variations in these methods exercise an important influence upon the auditor's technique. For example, the introduction of accounting machines has been responsible for some changes in audit technique.

Certain criticisms have been leveled against tabulating machines from a purely auditing standpoint on the ground that the extensive application of such machinery to the various phases of recording financial transactions has in some cases complicated the auditor's approach to his work, as, for instance, the difficulties encountered in obtaining the details underlying summary entries in the general records and others, and the use of codes of one kind or another which must be translated in order to understand the nature of the recorded transactions. But when one considers the important factors which led to the development and adoption of tabulating equipment, such as the volume of transactions to be dealt with, the need for detailed and timely information, and the efforts of management to keep administrative overhead to a minimum, any difficulties encountered by the auditor in ob-

taining from the records immediate detailed analyses because of the employment of mechanical devices are of secondary importance.

On the other hand, the auditor is benefited by the volume of statistical information and analysis available to him by reason of the flexibility of mechanical equipment as compared with the time-consuming process of compiling such data from hand-posted records. The existence of statistical reports concerning many phases of the company's business prepared from various viewpoints by means of mechanical equipment and tied into the general accounts (such as the tabulations of physical or stock-record inventory balances to furnish information to the purchasing, engineering, planning, and sales departments) should have a reassuring effect upon the auditor in that these statistics are often accorded a wide distribution among executives, department heads, and other key employees intimately acquainted with the business factors involved. These individuals are likely to detect discrepancies due to error or fraud, or they may raise questions the investigation of which may lead to the disclosure of matters affecting the accounts that might not otherwise be readily apparent.

Because of the automatic cross-checks which are a feature of most mechanical devices, there is greater assurance as to the accuracy of the detail underlying the recorded entries than is ordinarily the case with hand-posted records, in which the results are more dependent upon the human element. In the tabulating process, for example, the tabulating cards form the basic record from which subsequent tabulations of various types are made. These cards are prepared from the source documents (such as original purchase invoices, sales invoices, labor tickets, and the like) and the key-punch operation supplants manual transcription of the original data to various intermediate records. In order to obviate transpositions, omissions, postings to incorrect accounts, and similar errors which may arise, the accuracy of the transcription of the information to tabulating cards may be, and in fact is, frequently proved through the use of a verifier. Essentially, this verification process is a repetition of the key-punch operation, using the same source documents. Errors in original transcription are immediately disclosed because the machine will not operate when a key is depressed for which an erroneous original punch recording had been made. To insure the detection of errors arising from mechanical defects or from lost or misplaced documents, the tabulations prepared from the cards can be compared with predetermined control totals originating in the departments responsible for the transmittal of the original documents to the tabulating department.

Since copies of tabulations and reports of one sort or another may be expeditiously prepared on mechanical equipment, the auditor is frequently relieved of the necessity of preparing time-absorbing summaries and analyses of his own. The participation of the auditor in the preparation of listings and tabulations for his purposes may in some cases be confined to observing the operations of the machine. The reconciliation of payroll bank accounts involving thousands of pay checks will furnish an appropriate illustration. In the application of the tabulating process to such a large payroll, a so-called "card check" is used instead of the orthodox payroll check. Through the operation of the machine, which the auditor can observe, the card checks returned by the bank may be sorted into numerical sequence and subsequently the paid checks may be collated with the net pay summary cards. Thus, the auditor's work involved in reconciling the payroll bank accounts may be materially curtailed since the machine will account for the

checks returned by the bank and produce a list of checks outstanding.

The extent to which tabulating equipment is utilized for physical-inventory purposes varies widely with the size and type of the inventories to be compiled and the degree of efficiency which may be attained in the inventory compilation by mechanical processes. The machine applications range from control over inventory tags to complete tabulations of the inventories. In some applications, the inventory tags are represented by tabulating cards which are prepunched with information required to exercise proper control over the cards issued to the inventory crews, such as the serial numbers, symbols identifying each crew, and other data. After the inventories have been taken and the cards have been collected, the cards are automatically sorted in numerical sequence and a tabulating machine run is prepared of the serial numbers for the purpose of accounting for all cards issued. These operations can be observed by the auditor, or the machine operations may be repeated later on the cards selected by the auditor for his test of the numerical sequence of the inventory tags.

Numerous methods are in use as to pricing and extending the inventory quantities, such as the manual recording and subsequent punching of the unit prices on the cards, or the mechanical grouping of numerous cards relating to like items and automatically computing the money value by the use of prepunched master price cards. In both cases, the auditor in selecting for verification a representative portion of the items comprising the inventory is materially aided because all like items, wherever located, are shown in a single group instead of being scattered throughout manually prepared physical-inventory sheets.

The ability of tabulating equipment and other mechanical devices to furnish diversified statistical and other informative data quickly supplies the company and the auditor with yardsticks for appraising and interpreting the accounting figures to an extent which would be impracticable in the case of large enterprises if dependence for the preparation of such data rested solely on manual preparation. Thus, the intelligent application by the company of such mechanical devices to the development of useful information may, when such information is studied by the auditor, lead him to expand his inquiries into phases of the company's activities which otherwise might not have received such close attention. This expansion of work would probably be partially or wholly offset by curtailment in the extent of detailed checks because of the ordinarily greater clerical accuracy of mechanically assembled figures. The use of mechanical devices for accounting purposes is growing, and the foregoing examples have been cited to indicate that present-day audit techniques must be geared to the changing conditions. In order to meet these conditions, the auditor should possess a reasonable working knowledge of the machine methods followed by his client so that the audit program can be formulated with a full knowledge of the advantages afforded or difficulties to be encountered because of the use of such machinery.

It should also be noted that the introduction of such mechanical devices does not lessen the need for test-checking the original documents which constitute the source of the tabulated information, since the use of mechanical devices does not insure the accuracy of the documentary evidence which forms the basis of the transactions recorded by mechanical process.

NOTES ON THE ORIGIN OF DOUBLE-ENTRY BOOKKEEPING

BASIL S. YAMEY

THE FACT THAT THE origin of double-entry bookkeeping remains shrouded in mystery does not detract from the merits of the valuable researches into the early history of accounting made by several scholars. In the nature of things attempts to probe the origins of the technique are at best intelligent guesses or inferences. The search provides an interesting pursuit for the historian even if he knows that the spoor will disappear, sooner or later, in a confused tangle of speculation and conjecture, with the scent of red herring always present. The following notes deal with one of the possible trails to the unknown origin; or rather, a possible trail provides a tenuous central theme about which some observations are presented.

A POSSIBLE LINE OF APPROACH

Accounting resembles crafts in so far as it consists of techniques designed to serve certain practical ends. The methods and instruments of crafts generally undergo a continual though often almost imperceptible process of change. The discovery of new media,[1] the influence of particular craftsmen,[2] chance circumstances, or the coercive urge of unfilled requirements, may be the cause of these changes. Rarely, one would imagine, are the changes so radical that the continuity of the development is broken. Inertia and the belief in the sanctity of earlier procedures often lead to the adherence to earlier practices long after they have ceased to serve any useful purpose.[3] It is likely that the majority of changes, when they do occur, take the form of variations on the existing practice, by omission, simplification, addition or adaptation: the newly-evolved techniques closely resemble the ones previously used, and their character is largely determined by them.

Is it not possible or likely that mercantile accounting has evolved along the lines sketched in the previous paragraph? And that the appearance of double-entry bookkeeping is to be explained as one event, albeit a momentous one, in a gradual evolutionary process of development? Row Fogo has expressed this view that bookkeeping "is neither a discovery . . . nor the inspiration of a happy moment, but the outcome of continued efforts to meet the necessities of trade as they gradually developed."[4] Elsewhere I have queried this thesis that double-entry developed in direct response to some particular business need(s), which was not adequately served by earlier methods of accounting.[5] But

[1] As an example of a new medium, the possible effects of the introduction of Arabic numerals upon bookkeeping technique may be mentioned. The view has even been expressed that Arabic numerals are indispensable for systematised bookkeeping, since the earlier Roman numerals were, allegedly, unsuitable for tabular recording and computations. On this view Spain, where the use of Arabic numerals was first introduced to Europe by the Moors, has been claimed as the birthplace of double-entry. (See Theodor Drapala: *Die Buchhaltungskunde in ihrer wissenschaftlichen Pflege*, 1889, p. 68.) That this view is scarcely plausible may be gathered from the fact that Roman numerals were used in double-entry records for some time after the adoption of the Arabic system of numeration, apparently in order to make the fraudulent alteration of records more difficult.

[2] Thus the use of the "opening balance account," which "has since become a regular feature of the bookkeeping methods of practically the whole of Continental Europe" has been ascribed to Alvise Casanova in his *Specchio lucidissimo* (1558). (P. Kats: "James Peele's Maner and Fourme" in *The Accountant*, Vol. LXXXII, 1930.)

[3] Professor H. R. Hatfield has collected some of the "folk-lore" of double-entry bookkeeping, procedures still practised for no other reason than the magical influence of custom, in his article, "Accounting Trivia," in *Accounting Review*, September, 1940.

[4] In Brown's *A History of Accounting and Accountants*, 1905, p. 93.

[5] In *The Functional Development of Double-Entry Bookkeeping*, Publication No. 7 of the Accounting Research Association, 1940, reprinted in *The Accountant*, November 2, 1940.

even if my doubts are accepted as valid, the possibility of the emergence of double-entry as the product of a gradual process of change still remains open; for changes in the technique of a craft are not necessarily nor solely caused by the stimulus of novel problems awaiting solution. At the other extreme changes may be initiated almost by accident.

Here two sorts of bookkeeping, which it is reasonably certain were practised before the appearance of double-entry, will be examined to throw light on the question whether it is possible that double-entry developed as an improvement or expansion of them, taking over some of their basic features but representing a further stage in the process of adaptation and change. The two sorts of bookkeeping are single-entry and agency or factors' bookkeeping, the main emphasis being placed on the second.

SINGLE-ENTRY AND DOUBLE-ENTRY

It seems as if, before double-entry appeared, accounting records of proprietorships, whether single or multiple, were confined to records of dealings involving the granting or receiving of credit. The records assumed various forms and often the "books of account" were mere scraps of paper. Sometimes there were entries in diaries or journals, where the settlement of debts was indicated by the effective though untidy method of deletion. Sometimes the entries in the journal were reclassified into accounts, the beginnings of the modern ledger.

Though there is evidence that other transactions were sporadically recorded, the scope of the early bookkeeping efforts was very similar to that of what is now known as single-entry bookkeeping. But as the records were in no way systematized, it is perhaps incorrect to describe them as single-entry, which term today implies the presence of some system in the records. Indeed, single-entry as a *system* is more likely to have been a development from double-entry.

Dr. Jäger has stated that single-entry, *as a system*, developed out of double-entry through the gradual omission of all impersonal accounts.[6] Schmalenbach says that "there existed in Germany, particularly in the Hanseatic towns and in the South German trade centers, before the adoption of the Italian bookkeeping, a system of commercial accounting with a fairly well-developed technique and nomenclature." He continues that double-entry considerably influenced this native brand, "so that the single-entry bookkeeping methods of today have the appearance of being stunted versions of double-entry bookkeeping."[7] Also Flügel in his text, *Der getreue und aufrichtige Wegweiser* (1741) states: "Here I have purposely described double-entry first, because this is the chief source from whence single-entry has sprung."

Professor Hügli disagrees with this opinion that single-entry as a system is derived from double-entry by a process of attenuation. It is his view that "single-entry is no mere fragment, but in form and for its purpose a complete and satisfactory whole," and that "the natural development can indeed have been no other than that double-entry grew out of single-entry after the latter had matured into a complete system."[8] A subsidiary argument of Hügli's is that Luca Pacioli mentioned by name both single- and double-entry in the thirteenth chapter of his *Particularis*, the first printed work treating of accounting, thereby indicating at least the co-existence of the two systems at an early date. However, it is clear that in the chapter concerned Pacioli was merely referring to two

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[6] *Altes und Neues aus der Buchhaltung*, 1889, p. 3.
[7] *Dynamische Bilanz*, 5th. edition, p. 56.
[8] "*Ueber die Geschichte der Buchhaltung in Italien*" in *Zeitschrift für Buchhaltung*, 1894.

sorts of registers or indexes to the ledger, and not to two sorts of bookkeeping.[9]

But even if a system of single-entry bookkeeping had existed before the emergence of double-entry, there is still a very wide gap between the two methods both in scope and technique. The latter contains nominal and real accounts which the former does not. The cohesion of the accounts in the latter is without counterpart in the former. It would require the introduction of *deus ex machina* of considerable proportions to explain how the two widely dissimilar systems are actually successive stages in the evolution of accounting methods. Professor Littleton has suggested one way in which the gap may have been crossed: the automatic, unreasoned extension of the practice of making dual entries for some transactions to all transactions. If a cash account is kept in conjunction with the personal accounts in a system of single-entry, then the receipt or payment of cash in settlement of debts would require two entries. Similarly, even in the absence of the cash account, the substitution of one debtor or creditor for another would require two entries in the personal accounts. In Professor Littleton's words: "Once the practice of dual entries upon opposing sides of bilateral accounts had become established, it would not be difficult to extend it by analogy to new accounts. No one would have to stop and reason out the philosophy of the matter first."[10]

AGENCY BOOKKEEPING

It is the contention of Dr. de Waal, supported to some extent by the views of Professor Littleton and Mr. Kats,[11] that "factor" or agency bookkeeping played a significant part in the emergence of double-entry. Briefly, the view appears to be that agents had to keep accounts to show their indebtedness to their principals; that these accounts assumed a distinctive form; and, that double-entry is a lineal descendant of that system.

The bookkeeping aspects of agency may be summarized by saying that the agent must be able at all times to show to what extent and for what reasons he is indebted to his principal, or vice versa. The bookkeeping technique amounts to the keeping of a personal account in the name of the principal, debiting it with all expenses incurred by the agent on the principal's behalf, and crediting it with all the proceeds of the agency business received by the agent. There would be no profit calculation, partly because the agent would not necessarily know all the relevant facts (e.g., the cost of the goods he may receive from the principal), and partly because the profit calculation would be irrelevant from the agent's point of view. The receipt of goods from the principal would not give rise to an entry in the principal's account until the sale of the goods. The agent would find a stores book with details of *quantity*, disposal instructions, etc., useful to keep track of different consignments. He would also find it useful to keep accounts of his cash transactions and credit dealings in connection with the agency.

Dr. Mickwitz in an interesting study has shown[12] that this type of agency accounting is most suited for another type of trading, which appears to have been common among the traders in the Hanseatic towns. He has described the practice as it prevailed in Reval in the fifteenth and sixteenth centuries. The form of trading was a type of partnership between two

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[9] See Kheil's "*Ueber einige Bearbeitungen des Buchhaltungs-Tractates von Luca Pacioli*" in *Zeitschrift für Buchhaltung*, 1895.

[10] *Accounting Evolution to 1900*, 1933, pp. 38–39. An interesting conjecture on similar lines is put forward in the article on Bookkeeping in McCulloch's *Commercial Dictionary* (New Edition, 1859).

[11] P. G. A. de Waal: *De Leer van het Boekhouden in de Nederlanden tijdens de Zestiende Eeuw*, 1927. A. C. Littleton: *op. cit.* P. Kats: "Early History of Bookkeeping" in *Journal of Accountancy*, Vol. XLVII, 1929.

[12] *Aus Revaler Handelsbüchern*, 1938.

merchants, each in a different town, and each sending goods to the other to be disposed of at the best price, profits being shared in a pre-arranged ratio. In such circumstances each partner was virtually the factor for the partnership. There was no single centralized set of books, but each partner kept records of partnership transactions in which he had taken part. Each partner kept records of his expenses on account of the partnership, and his receipts from the partnership business. A balance of receipts over payments would be of almost the same significance as the excess of an agent's receipts over his payments, viz., indebtedness to an external entity. The only difference would be that the partner-factor had an interest in the profits made by the external entity, which was calculated periodically by combining the separate records of the two partners. Undoubtedly the bookkeeping adopted resembles that of agents, and Dr. Mickwitz objects to the name "agents' bookkeeping" as a description of the common system, as being incorrectly restrictive in its title.

Whether or not agency bookkeeping has been a stage in the evolution of double-entry has been made by Dr. de Waal to depend largely, but by no means exclusively, upon the interpretation given to the works of Valentin Mennher von Kempten, who wrote several texts on accounting published in Antwerp between the years 1550 and 1565. But before discussing these works it is useful to go back to the works of the earliest German writers on bookkeeping, Heinrich Schreiber and Johann Gottlieb. It has been variously suggested by some historians that the system described in their volumes antedates the Venetian double-entry method, and is quite independent of it; that their work describe agency bookkeeping, and that Mennher borrowed from them.[13]

SCHREIBER AND GOTTLIEB

Schreiber's *Ayn new kunstlich Buech*, published in Nürnberg in 1518, is the earliest known book on bookkeeping in German, and the earliest treatise in any language devoted solely to bookkeeping. It describes a system of accounts that requires three main books: a journal (*Zornal*), a ledger (*Schuldtbuch*), and goods-book (*Kaps*). All transactions are first recorded in the journal. The ledger contains only personal accounts and a cash account. The goods accounts, one for each type of merchandise, are placed in the goods-book. For each transaction a double entry is made, though each of the two entries may be made in a different book. On the purchase, say, of wine for cash, two entries would be made, one in the cash account in the ledger, and the other in the wine account in the *Kaps*. The entries are made in a peculiar way, because the receipt of goods would be entered on the right-hand side of the goods account, while the payment of cash would be recorded on the right-hand side of the cash account—so that the purchase of goods would give rise to two entries, both "credits" to modern eyes.

To verify the accuracy of the books, a "Proof of the Bookkeeping" (*Proba*) has to be carried out. The total profit has to be calculated in the goods-book, by summating the profits on each goods account, after introducing the closing stocks. Then "add together the cash receipts, what others owe you, and the goods on hand; and from the total subtract the cash payments, and what you owe others; and then if the balance equals the profit, it is correct." Schreiber did not illustrate the *Proba* or the closing of the books. But if the journal

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[13] For opinions about these early works, see: Michwitz: *op. cit.*, p. 200; Kats: *op. cit.*, p. 12; Row Fogo in Brown: *op. cit.*, p. 123; A. H. Woolf: *A Short History of accountants and accountancy*, 1913, pp. 124–125; B. Penndorf: *Geschichte der Buchhaltung in Deutschland*, 1913, p. 113; de Waal: *op. cit.*, pp. 77–78; Jäger: *op. cit.*, p. 71; D. Murray: *Chapters in the History of Bookkeeping*, 1930, p. 207.

entries in his example are correctly posted (there are several typographical errors in the 1544 edition), the proof naturally holds.

Schreiber's system is certainly based on the double entry for each transaction, though the arrangement of the books is strange (about which there are some comments below). The *Proba* is based on the fact that the increase in the net assets is equal to the profits. In Schreiber's example there is no opening capital, so that the closing net assets equal the profits. His equation:

Receipts + Debtors + Goods − Payments − Creditors = Profits

may be transcribed as:

Cash balance + Debtors + Goods − Creditors = Profits
or, Net Assets = Profits
or, Increase in Net Assets = Profits (where there is no opening capital).

The last equation is of course one of the fundamental equations of double-entry bookkeeping.[14]

Gottlieb's *Ein Teutsch verstendig Buchhalten* (1531) and *Buchhalten* (1546) describe a system very much akin to that of Schreiber. The same three books are used. In the 1531 volume the closing of the books is not described, because Gottlieb believed that it was advisable to give oral instruction on that difficult subject. In the later work this omission is rectified. The profit-and-loss calculation is appended to the goods-book, just as in the case of Schreiber's system. The proof of the accuracy of the books is the proof provided by double-entry bookkeeping. The increase in the net assets is calculated and is checked against the profit as calculated in the rear of the goods-book.

It appears quite clearly that Schreiber and Gottlieb had come into contact with double-entry bookkeeping, but that they had given imperfect and confusing renderings of it. Their system is based on the dual entry for each transaction. The profit is calculated in two ways from the entries made; but the two calculations are not linked together as in double-entry bookkeeping. Dr. De Waal's contention that the system is single-entry is incorrect, because impersonal accounts have no place in single-entry.[15] Penndorf's judgment that it is neither single-entry nor double-entry is nearer the mark, though its double-entry basis should be stressed.[16]

As both Schreiber and Gottlieb appear to have described some modified form of double-entry proprietorship bookkeeping, complete with a profit calculation, it is difficult to see how their system can be referred to as agency bookkeeping. The confusion may have arisen because in the 1546 volume Gottlieb gives two worked examples, one for a single proprietor and one for an agent. As the system is exactly the same in both cases, and identical with that described in the 1531 volume, which was expressly intended for "masters and partners," it seems, if anything, that the modified double-entry had been adapted for agency bookkeeping, and not the other way about. The works of Schreiber and Gottlieb appear to be interesting historical curiosities, without any great significance for the emergence, development, or spread[17]

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[14] Proofs of the accuracy of accounts kept on a double-entry basis have taken a fascinating variety of forms. Here it may be of interest to mention one other variation on the basic theme, that of J. Sedger in *An Introduction to Merchants' Accounts* (1807–08). His formula is:

Opening assets + profits balances + closing liabilities = Opening liabilities + loss balances + closing assets.

Of this Proof Sedger says: "Note—That this kind of Proof, which is most concise, has not been observed before, except by an intimation in my former production." He also gives "The usual Proof of Book-keeping": opening "neat estate" plus profit equals closing "neat estate."

[15] *Op. cit.*, pp. 77–78.

[16] *Op. cit.*, p. 113.

[17] The main influences which spread the knowledge and use of the Italian bookkeeping to Germany seem to have been: (i) The commercial contacts between German merchants (and their subordinates) and merchants in the Italian cities and the Low Countries. Matthäus Schwarz, the head bookkeeper of the Fuggers, spent

of double-entry bookkeeping.

Before leaving Schreiber and Gottlieb, some comments on their treatment of goods accounts by segregating them in a separate "ledger" (the *Kaps*) may be of interest. The exclusion of goods accounts from the general ledger seems to have been a common practice in parts of Germany, difficult to eradicate and therefore probably a relic of earlier methods.[18] Gottlieb, though not abolishing it, does not approve of the practice. He likens the split ledger to a room which is divided in two for no reason. He shows how it makes posting and cross-reference difficult, and that it requires two indexes. Also, "many books, many errors." Both Kaltenbrunner in *Ein newgestellt kunstlich Rechenbüchlein* (1565) and Schultz in *Arithmetica oder Rechenbuch* (1611) maintain the division of the ledger in two parts, *Schuldtbuch* and *Kaps*.

It is possible that this practice was borrowed from agency bookkeeping, except for the important difference that in agency bookkeeping it is unlikely that the agent would have recorded monetary values in his "goods book," if he kept one, as did Mennher's "agent" (*infra*). An agent would have greater need of detailed merchandise records than the owner of a business, since the agent is accountable to another for the disposal of the merchandise entrusted to his care. At the same time he would have no need to keep his merchandise records on the same basis as his cash or personal accounts, as his interest in the merchandise, until sold, is confined to quantitative control. Hence it is likely that merchandise records in agency bookkeeping may have preceded merchandise accounts in proprietorship bookkeeping; and that a separate account-book for detailed merchandise records may have been one feature of agency bookkeeping, taken over in double-entry bookkeeping.[19]

VALENTIN MENNHER VON KEMPTEN[20]

Mennher's first work on accounting, his *Practique brifue pour cyfrer et tenir Liures de Compte*, was published in 1550 in Antwerp, and his later work, *Practicque pour brievement apprendre a Ciffrer, & tenir Liure de Comptes*, in the same city in 1565. A Spanish translation by Antich Rocha appeared in Barcelona in 1565, and German editions were published in Antwerp in 1560 and 1563. An important work in Dutch, Pietersz' *Practicque Omte Leeren Rekenen Cypheren ende Boeckhouwen* (1596) is a version of Mennhers edition of 1565; and in turn the English *Pathway to Knowledge* by "W.P." (1596) is a translation of Pietersz' work.

Mennher explains why he wrote his books, and in so doing expresses sentiments, for the first time I believe, which have often been repeated quite independently by writers of later manuals, either by way of prefatory explanation or of advertisement. He says he wrote his books

some time in Venice, and on his return brought out an unpublished manuscript on double-entry, which may have been influential, (ii) The publication of German text-books, of which Schweicker's *Zweifach Buchhalten*, (1549), based on Manzoni's *Quaderno Doppio* (1540), was the first satisfactory exposition of double-entry. (iii) Joachim Rademann in *Der Wehrt-geschätzte Handels-Mann* . . . (1714) traces the practice of double-entry in Germany to the merchants of Brabant who were forced to flee to Germany when expelled by the Duke of Alva. One of these refugees, Passchier Goessens, wrote a book, *Buchhalten fein kurtz zusammen gefasst* . . . (1594), which had considerable influence.

[18] See Woolf: *op. cit.*, p. 124.

[19] A further speculation arises out of these observations. The suggested influence of agency bookkeeping may explain why in the early practice of double-entry there were no single aggregated purchases, sales, and "unsold merchandise" accounts, but instead a number of separate "trading accounts" for each type or lot or parcel of goods, each "trading account" combining the purchase, sales, unsold stocks, and profit or loss for the batch concerned. This practice appears to have died out, in Britain at least, somewhere in the nineteenth century.

[20] Discussions on Mennher's works may be found in the works of de Waal and Kats cited in footnote 11, and in articles by Berliner and Kheil in the *Zeitschrift für Buchhaltung*, 1895 and 1898, resp. An at times acrimonious controversy between Berliner and Kheil is in the latter volume of the *Zeitschrift*.

"because many books have been written about the noble art of arithmetic and about the way accounts are kept, by persons without practical experience in business, and who consequently use many examples and illustrations which are of little value, and are more diverting than useful."

Both Professor Volmer, who edited a re-issue of Mennher's first work, and Dr. de Waal, regard the system described in that work as agency bookkeeping, anterior in point of time to Italian double-entry bookkeeping. Dr. de Waal is of the opinion that the agency bookkeeping described by Mennher is "a remarkable and indispensable link necessary for a thorough understanding of the development of the system of double-entry." He has taken the historians, Penndorf and Kheil, to task for having paid insufficient attention to agency bookkeeping in the history of accounting, and for having regarded Mennher "rather as a peculiar, than as an important, writer."[21]

Mennher himself points out that his work is "*a la guise et mainiere italiana*," thus suggesting Italian influence. Dr. de Waal attempts to explain this away by his assertion that Mennher followed one of the many methods other than double-entry which existed in Italy; and, by way of substantiation, he refers to Johann Gottlieb's remark that he knew of 40 varieties of bookkeeping. But this reference is unfortunate. In his 1531 volume, Gottlieb says:

> "As there are different kinds of business, so there are different kinds of bookkeeping (of which I have met with some forty varieties); however, all are grounded on the same principle. If one knows this fundamental principle of bookkeeping, then not only does one understand all kinds of bookkeeping, but one is also able to adapt the bookkeeping to each kind of business and as the circumstances require; like a piece of wax, which allows itself to be moulded into any shape."

[21] *Op. cit.*, p. 140, note.

A similar remark appears in George Thomas Flügel's *Der getreue und aufrichtige Wegweiser* (1741):" One will find as many kinds of bookkeeping as there are counting-houses: but actually in the keeping of the books one uses not more than two methods, namely, single-entry and double-entry." It should be clear that Gottlieb was indicating the possibility of various ways of arranging the accounting records, all based, however, on double-entry.

In the 1550 edition Mennher advises the uses of three main books: a journal, a ledger containing personal accounts, and a goods-book containing details of consignments bought and sold. The resemblance to the system described by Schreiber and Gottlieb is striking; but an important difference is that Mennher's goods-book does not contain any "value" entries but only details of *quantities* bought and sold.

In the worked example the business and the bookkeeping is conducted by Pierre du Mot on behalf of his principal or master (*mon maistre*), Nicolas de Reo. There is an account in the latter's name.

The entries concerned with the handling of goods are of special interest. When goods are received by du Mot from de Reo, only a quantitative entry on the debit side of the appropriate goods account in the goods-book is made. When goods are sold, cash or the purchaser's personal account is debited, and the account of de Reo is credited. In addition, the goods account is credited with the quantity sold.

When a debtor goes bankrupt, his account is credited and the account of de Reo is debited. When expenses are paid, cash is credited and the master's account is debited. A similar double entry represents the payment of a salary to du Mot.

The entries for the various transactions suggest agency bookkeeping in no uncertain manner. The omission of "money"

for goods, unless du Mot pays for them or received money for them, is characteristic of agency bookkeeping. The booking of expenses paid against the principal's account is also a typical procedure. The account of de Reo at any time *before the closing of the books* shows what du Mot owes him. There is no profit calculation.

On the closing of the books the cash balance and all the personal account balances are closed into the account of de Reo. As every transaction that has been recorded in the ledger has given rise to two entries in ledger accounts, one in the debit and the other in the credit, it follows that de Reo's account will be in equilibrium.[22] Its contents, after closing, are:

Debits

Opening creditors
Cash purchases } incurred by
Credit purchases } du Mot
Expenses paid
Closing debtors
Closing cash balance

Credits

Opening debtors
Opening cash balance
Cash sales
Credit sales
Interest receipts
Closing creditors

As this account stands, it is very confusing and almost meaningless. (It is certainly meaningless in the context of agency accounts.) It was apparently not intended as a statement to be submitted to de Reo, because Mennher gives instructions for drawing up two statements, one showing the amount of the indebtedness to de Reo and the other the quantities of goods on hand, which together would have been an admirable, brief account of de Reo's position at the date of balancing. The reason for the curious balancing method is obscure; but it does suggest that Mennher, who probably was well-versed in agency bookkeeping, had come into contact with double-entry bookkeeping and had attempted to graft the idea of balancing on to the former system, and in doing so robbed it of much of its clarity.

In his later volume of 1565 Mennher describes full-fledged, double-entry bookkeeping, with a profit and loss account and balance account. In the example the books are still kept by an "agent," Jacques le Beau, for his principal. Kheil convincingly explains the introduction of a bookkeeper apparently acting as agent for the proprietor as a common expository device, employed both by Ympyn (*Nieuwe Instructie*, 1543) and Wolffgang Schweicker (*Zweifach Buchhalten*, 1549) in their works dealing with double-entry. Having regard to the closing entries in the 1550 work, to the subsequent exposition of double-entry in 1565, and to Kheil's explanation, it does not seem as if Mennher's work can be used as strong support for the thesis linking agency bookkeeping with the development of double-entry. Mennher, even if he set out to describe agency bookkeeping in 1550, was already influenced by double-entry. And as Kheil points out in his detailed and knowledgeable study, there is reason to doubt whether he ever intended his work as a hand-book for agents, his view being that the 1550 work was intended as an elucidation of double-entry, and not a very successful one.[23]

AGENCY AND DOUBLE-ENTRY BOOKKEEPING

The conclusions reached as regards Mennher's works do not, of course, imply that there cannot be any truth in the the-

[22] This shows some similarity with the closing of the accounts in Manzoni's *Quaderno Doppio* (1540).

[23] Berliner (see footnote 20) has stated his view that Mennher in 1550 was dealing with agency bookkeeping. He regards the changes introduced in 1565 as evidence "that Mennher has taken a step out of the real world into the realm of theory, where one has to deal with speculative possibilities, whereas the merchant rejects all theories which produce no practical results."

sis that agency bookkeeping is an indispensable link in the process of change in accounting technique eventuating in the appearance of double-entry bookkeeping. It merely implies that some of the evidence advanced in support of this view appears to be faulty. Indeed, an analysis of some of the characteristics of agency bookkeeping alone suggests that there may be some validity in the thesis.

One may quite reasonably assume that some form of agency accounting, incorporating the essentials of the modern method, existed before the emergence of double-entry bookkeeping. The relationship of principal and agent was well-known in Western commerce from an early date; and where the relationship exists there is a pressing need for some form of detailed accounting—a much more urgent need for systematic records than in the case of single proprietorships or even partnerships. The earliest known proprietorship accounting records reveal a rudimentary "system," confined to credit transactions. An agent would have required more detailed records; and almost certainly records of all transactions, whether cash or credit, would have been necessary. A well-developed system of agency bookkeeping may have been in existence side by side with a rudimentary system of proprietorship accounting. Even if there were no pressing need for improvements, there would have been a tendency for the more "advanced" form to influence the "backward" practice.

Moreover, if there is a cash account in the agency bookkeeping alongside of the personal accounts, each transaction would give rise to two entries. This would arise because the principal is the debtor or creditor of the agent. Every expense or item of revenue, whether in cash or on credit, decreases or increases the debt due to the principal, and also necessitates an entry in the cash account or a personal account. Hence, one of the formal characteristics of double-entry may have existed in the earliest systems of agency accounting.

Double-entry bookkeeping may have developed through the slavish adoption of agency bookkeeping technique by proprietary business concerns. Following the analogy of the agent's records, each expense would be debited to the proprietor's (capital) account, and each item of revenue would be credited to the proprietor's account, would contain all revenues and expenditures as credits and debits, and the profit—here the analogy ends—would be reflected in an increase in the balance on capital account, allowing, of course, for capital additions and withdrawals. In other words, the owner of the business would be regarded as being outside the firm, a principal for whom the business was being conducted. (Here, incidentally, is one possible explanation of how the proprietor, in double-entry, came to be treated, formally, as a creditor of the firm.) Gradually it would become apparent that it would be useful to show each type of expense and revenue separately (or more realistically, in view of the facts, to show the expenses and revenues of each trading event separately). These separate revenues and expenses would be collected periodically in the profit-and-loss account to be closed in total to the capital account.

It may be argued that the idea of slavish adoption, followed by transformation, is not plausible. Both Dr. de Waal and Professor Littleton have suggested other ways which may be more acceptable. Dr. de Waal shows how the application and broadening of agency bookkeeping may have taken place if the agent became his principal's bookkeeper.

> The agent, who has now entered the service of his master as bookkeeper, will have to deal not only with a part but with the whole of the proprietor's possession. The account of the prin-

cipal would in this way acquire the characteristics of a capital account.[24]

Professor Littleton postulates a change in the nature of trading organization. He suggests that the distinguishing features of double-entry bookkeeping "would grow quite naturally out of these 'agency' relations, as trading partnerships of more permanent nature replaced single ventures or occasional agreements."[25]

A 'HAPPY MOMENT'?

These theories can account for the development of double-entry out of agency bookkeeping, though the necessary assumptions are large. Some, doubtlessly, will find the differences between double-entry bookkeeping and agency bookkeeping (and even more so, single-entry bookkeeping) too great to make the gradual bridging of the gap between them seem likely or plausible. Perhaps, it may be hazarded, it would be more realistic to regard the appearance of double-entry as a more or less complete break in the development of accounting methods, noting, however, that double-entry may have taken over many features of earlier techniques.

The latter consideration points to the suggestion that double-entry bookkeeping may have been the "inspiration of a happy moment." Augspurg has expressed this more romantic view that double-entry is the product of one man's brain. His view is based upon "the definite conclusion, which will be reached by every competent judge after a thorough examination, that the scientific system based on mathematical principles could have had no other source than the genius of one individual (and he a mathematician well acquainted with commerce) from whose pen it must have flowed forth in one gush."[26] This theory poses the interesting questions of how and why the system was adopted by others, and who the mathematician was. Augspurg identified Luca Pacioli as the genius; but Pacioli himself disclaimed the honour, and there is evidence of double-entry records before 1494, and that Pacioli's work is a recension of an earlier Venetian manuscript. But whether or not double-entry is the brain-child of some mathematician, it is at least certain that double-entry was nurtured and encouraged in the high places of mathematical learning.

And so the probings into the origins of double-entry bookkeeping lead from one speculation to another. The true story is likely to remain as much of a mystery as double-entry itself must be to the uninitiated.

[24] *Op. cit.*, p. 282.
[25] *Op. cit.*, p. 38.

[26] "Die Irrthümer in den neuerlich verbreiteten Ansichten über die Erfindung der Doppelbuchführung und ihre Berechtigung" in *Zeitschrift für Buchhaltung*, 1897

PROBLEMS IN ASSUMING PROPER RESPONSIBILITY

I. B. McGladrey

The question of the accountant's responsibility was discussed in an article entitled "What is the Accountant's Proper Responsibility?," which appeared in the November, 1946, issue of the *Journal of Accountancy*. In that article attention was directed to the fact that up to the present an accountant may dodge the responsibility of stating that his examination lacked some of the standard auditing procedures carefully developed over the past fifty years. He may state that he did this and that in the way of verification and omitted something else; but, how is the layman to know whether what he did constitutes an audit on which reliance may be placed? Rule 5 of the Rules of Professional Ethics of the Institute, which is the only rule dealing even remotely with the situation, appears to be purely negative in effect. Substantially it says: "Thou shalt not express an opinion unless thou hast made a satisfactory audit." But no positive obligation of any kind is imposed upon the accountant either to render an opinion where his scope of audit warrants if he does not wish to do so, or to state that he did not perform a satisfactory audit when such is the case.

The expression of an opinion by an accountant in connection with financial statements means in effect: "This is a financial picture upon which management and third parties may rely." Punishment may be inflicted if he gives this opinion without an adequate examination. But the accountant who makes a superficial examination and who wishes to dodge responsibility for it may hide in a fog of words. What would we think of an engineer who, after a superficial examination of a bridge, would put out a report on which he had good reasons to believe people might rely, and who would say that he had examined this part and that and had not examined some other part of the structure, but who failed to say that his examination was not sufficient for him to state clearly whether the bridge might be depended upon to carry traffic?

Some accountants believe that the Statements on Auditing Procedure, issued in 1939 by the Committee on Auditing Procedure, actually do require the accountant to state definitely whether his work may be depended upon. Mr. Stauffer, chairman of the Committee on Cooperation with Bankers and Other Credit Grantors, stated in a letter to me dated May 21, 1946:

> . . . it appears to me that your proposal has been covered already and provided for by the Institute in that (1) a statement of the Auditing Procedure Committee counsels the accountant in an informative report, where no opinion is expressed, to state the limitations or exceptions relating to his examination which make it impossible for an opinion to be expressed as to the fairness of the financial statements as a whole; (2) the preceding statement having come from the Committee on Auditing Procedure, therefore, represents accepted or required procedure; and (3) if an accountant disregards such procedures he may be subject to censure upon a complaint to the Ethics Committee under Rule 5 (c).

I agree with Mr. Stauffer that the clear inference is that it is the duty of Institute members to make this clarification. Most members with whom I have discussed this question do not, however, agree that he is definitely required by present Institute rules to do so. It seems to me that, if it is the prevailing opinion of the members that the accountant should be required to as-

sume this responsibility, the Institute should make this clear by amending Rule 5.

Regardless of rules, however, I do not see how any ethical practitioner can conscientiously defend the practice of merely stating what verifications were made and which were omitted, thus leaving it to the third party to decide whether the scope of the examination was sufficient for him to depend upon the report.

Assuming that all accountants who desire to undertake their full responsibility to third parties will try to accomplish proper clarification regardless of rules, we are confronted with the problem of what is the best way to do this.

Our organization has decided to take the plunge and has adopted the policy of bringing this point out definitely and clearly in all cases. We have been groping for some time to find the best procedure to accomplish this purpose.

A suggestion as to the wording to be employed was included in the article to which reference was made in the opening paragraph. The recommended wording was as follows:

> The extent of our examination was not sufficient for us to express an opinion on representations in the attached financial statements. Omitted auditing procedures were . . . .

Perhaps better means might be employed to bring out the point; any suggestions would be appreciated.

In our campaign of clarification we try to arrange to have a partner confer with all clients for whom the scope of our examination has not in the past been sufficient for us to express an opinion in our report. In this conference we explain that we are trying to arrive at the scope of work which will best fit their needs. If they expect to use our report for credit or other use with third parties, we advise them regarding the additional work and probable cost if we are to render an opinion report.

In case they do not expect to use the report with third parties we discuss the angle of assurance to the management that the internal control is functioning satisfactorily and that the accounts are being properly maintained. Our object, we tell them truthfully, is to give them the accounting service that is best fitted for their needs. In every instance we are very careful to avoid any appearance of trying to sell them more work.

We find that there is a vast difference, in the mind of the client, as to whether we state what verifications were made and what were not made, as we used to do, or come out definitely and say that the extent of our examination was not sufficient for us to express an opinion. This was rather dramatically brought out in our newly inaugurated campaign recently. One client, who had had a full audit made previously with the exception of tests of inventory quantities, decided he would not have such tests this time either since he would not use the report with third parties and, besides, he "knew what was in the inventory." We told him what we would have to state in the report, but he said that would not matter. In accordance with our policy we made no attempt to influence his decision. When we delivered the report, however, he called us up and said he did not like that statement in it, and wanted it out. It happened that the inventory consisted of very large items on which perpetual records were kept, so we told him it would be possible to count the stock and work it back to audit date. He had us do this and change the report to include an opinion. Since this experience we have each partner carry with him a typewritten copy of the phraseology to show the client so that he can base his decision on visual as well as auditory evidence.

In this case the client really did not intend to use the report with third parties.

He just didn't like the idea of having a statement in the report that an opinion could not be given. The impact of that statement was apparently more forceful than we had suspected. There are some, however, who, perhaps unconsciously, wish to trade upon the name of the accountant without having an audit made since the custom has been to permit this practice. The clear-cut statement suggested would be particularly useful in such cases.

The response to our campaign has, in general, been surprisingly good. One client, whose firm had grown from a small beginning to a very considerable enterprise, made an interesting remark. He said he did not need our report for credit purposes, but that his business had grown so large that he felt he was the third party, and needed a full audit to assure him that the internal control and accounting set-up were functioning properly.

With rare exceptions those expecting to use the report with third parties have arranged for the deficiencies to be eliminated and a satisfactory audit made. The ones who do not need the audit for credit purposes get a better idea of the purposes of an audit from the discussion. In nearly every instance they give evidence of appreciation for our efforts to give them the type and quantity of work best fitted to their needs.

At first some members of our organization went at it by telling the client that we had adopted a new rule to the effect that we either made a full audit or else we "told the world" about the deficiencies, "and didn't they want to have a real audit made?" The response to this approach was almost completely negative. We have since warned all of our people to avoid any semblance of selling. We have indeed gone further, and told them to fix firmly in mind the fact that our firm does not want to do any work unless it is to the best interests of the client to have it done and even then only if he freely decides that he wants it. We want them to bend over backward in an effort to avoid any appearance of selling. The strange thing about it is that the "service" approach (and it must be genuine) actually results in securing much more work than the "selling" effort.

In this campaign of clarification we have run into some peculiar experiences. One of the most fantastic, and incidentally, one of the few where the deficiencies were not remedied when the report was to be used with third parties, concerned the audit of a state bankers' association. We had recently taken over a practice which had for many years included the "audit" of the state bankers' association. We approached the secretary, who like many another secretary really runs the works, and discussed the general proposition first. In fact, we started out by asking him to read the manuscript, "What is the Accountant's Proper Responsibility?" which had not yet been published. We gave him a copy of the pamphlet, *Verification of Financial Statements by Independent Public Accountants* (which he apparently had never heard of). Then having, as we thought, laid the foundation, we pointed out the deficiencies in the so-called audit. The principal deficiencies were as follows: no direct confirmation of a very substantial bank balance; no inspection or other verification of many tens of thousands of dollars' worth of U. S. bonds; and, no investigation as to whether members' dues and other income which ran into a lot of money had been recorded as received.

We first proposed sending out letters to member banks in confirmation of dues, but the secretary said he would not have it done. We then looked about for other means of verification and were advised that official publications of the State Superintendent of Banking and of the National Bank Examiners would give us the information needed to make satisfactory

tests of this source of income. Next, we suggested obtaining independent confirmation of insurance income which all came through one surety company, but he vetoed that idea. It took a little more ingenuity to figure out a means of satisfactorily verifying this income without direct confirmation, but we were finally able to work out what we thought would be sufficient verification from information on hand.

This left the bank balance and the securities held for safe keeping, and we told him we could think of no way to get satisfactory audit verification of the bank account without direct communication, or of the securities without either inspection or direct confirmation. He said he would not have any such confirmations. We then asked whether he would want the report to state that they were omitted, and he said he would not have that either. We asked him to investigate in order to satisfy himself that the suggested verifications were normal, in fact required, audit procedures. He told us he wouldn't have his committee insulted that way (I think he meant his auditing committee) and that they would not have any CPA audit. Whether they did or not we have not yet learned.

We pointed out to members of the association the absurdity of letting the man who was being audited choose and dismiss the auditors and prescribe the scope of the examination. Some of them realized fully the painful position in which this put the association, but apparently could do nothing about it.

All of this happened very recently. No question of added cost on account of more work was even mentioned. As a matter of fact the additional time required to make a real audit would have been negligible, and we were prepared to absorb that ourselves in order to see that a proper audit was made.

The "certificate" which the former auditors had given is quoted below, with deletions to conceal the identity of the parties:

CERTIFICATE

We have made an examination of the books and records of the________________ *BANKERS ASSOCIATION* and the reports of the Treasurer, Secretary and Auditing Committee for the fiscal year ended________________

WE HEREBY CERTIFY that, in our opinion, the accompanying reports of your Treasurer, Secretary and Auditing Committee correctly reflect the financial condition of the Association as at ________________ and the results of operations for the year ended with that date.

The system employed in recording the financial activities of the Association appears thorough, comprehensive and efficient, provides complete accountability and is operated in a commendable manner.

________________COMPANY
By
Certified Public Accountant

The examination upon which the foregoing "Certificate" was based did not include all of the required audit procedures prescribed in the bulletin, *Examination of Financial Statements by Independent Public Accountants*. The following were the principal deficiencies:

Bank balances were not confirmed by direct communication with the depository.

Securities were not verified either by direct confirmation or by inspection.

Sources of income, both members' dues and insurance receipts, were not verified independently, but amounts were accepted as recorded.

The last paragraph of the "Certificate" sounds almost like Hollywood. If a "stupendous" and a "colossal" were thrown in it would sound almost as laudatory as some of the pronouncements on movie productions. But before we throw too many rocks at the bankers, let us soberly admit that the accountants who put their names to a "Certificate" like this

after such a farce of an examination, were equally to blame.

In my prior article I stated that we were willing to offer our firm as a sort of guinea pig in connection with the problem presented. I have continued it here by telling some of the things that have happened to us since we "stuck our necks out." Our experiences are, it seems to me, particularly illuminating. On the whole they are very encouraging. We were afraid we might encounter a great deal of difficulty in going it alone in adopting a rule of complete clarification of our responsibility in all cases. The question we were most apprehensive about was why we had to do this in cases where for many years we had followed the old and general practice of hiding in a fog of words.

We have lost some clients. We have felt that unless we are willing to take such such losses in all cases where necessary our experiment would not be worth much. But the heartening thing about it is that such losses have been very few, and that we have actually gained more work than we have lost. The additional work occasioned by those who decided to have a satisfactory job done more than offset all losses.

One group of clients in Iowa, among whom we had expected heavy losses, was savings and loan associations. This was because we had not generally followed the practice of making test-check confirmations of shareholders borrowing and savings accounts, and had not expressed an opinion. These associations are required to have an audit made each year, and they may choose between practicing accountants and the Auditor of State as to who shall make such audits. We communicated with the savings and loan division of the Auditor's office and asked whether our reports would be accepted if we stated that we could not express an opinion because we had not confirmed shareholders' accounts. Heretofore the Auditor's office had not confirmed such accounts; and, we had merely stated what verifications were made and which were omitted—in other words, we hid in the fog. The Auditor's office was somewhat on the spot because it was rather difficult for them to refuse to accept a report based on the same type of audit they themselves made. So they finally agreed to accept such reports. We then advised these clients that we would make whatever degree of verification they desired, but if essential procedures were omitted we would have to state that we could not express an opinion. We did not lose an account of this type. One or two decided to have shareholders' accounts confirmed, but most of them accepted the alternative. In no case was it the added work and cost that deterred those who decided not to have it done, but the fear of disturbing their relationship with their shareholders.

To show that the problem is not confined to any particular locality, I wish to quote, with permission, a letter I received recently:

> Upon reading your article in the November issue of the *Journal of Accountancy* entitled "What is the Accountant's Proper Responsibility?," I am inclined to agree with you that it is high time some positive action was taken by the Institute on this subject.
>
> Before progressing further, let me introduce myself a bit. I am an associate member of the Institute, 28 years old, a graduate of Ohio State University and Certified in New York and Ohio. Before the war I spent three years with —————————— in New York and have recently become associated with——————————— in ——————————. After a lapse of three years, I am again vitally interested in public practice, its future, etc.
>
> For a short period last year I was employed by a local firm of Certified Public Accountants in Detroit, and my experiences there brought home to me for the first time the abuses of the title C.P.A. which are touched on mildly in your article. I left this firm after a three month stay principally because I could not stomach the abuses of the term "audit" which were continually practiced. They followed the practice of "not certify-

ing" wherever possible, and their examinations were very superficial, consisting usually of the following:

(1) Checking bank reconciliation prepared by client—no subsequent reconciliation.
(2) Footing trial balance of accounts receivable—no aging or confirmation.
(3) Obtaining from client a certification form *re* inventories—inventory totals were frequently known to be fictitious for tax benefits to be derived by client.
(4) Accurate verification of depreciation calculations, prepaid insurance and accrued liabilities.
(5) Practically no verification of accounts payable or unrecorded liabilities.
(6) No verification of capital stock records, minutes, etc.

On the basis of such an examination (?) an "Audit Report" would be issued stating that "We have made an examination of the books and accounts and submit herewith our report." The report was usually long form, amounting to 15 or 20 pages, and including much narrative matter and many elaborate schedules of income and expense with percentage comparisons, etc. I could elaborate further, but I am sure you are familiar with the type of report to which I refer. Despite the omission of "certification" or a statement of opinion, this report was put out on a firm letterhead and bound in an expensive binder, both of which carried the inscription "Certified Public Accountants"—"Members of the American Institute of Accountants." When such a report reached the hands of intelligent readers it certainly cast a shadow of ridicule upon both Certified Public Accountants as a class and on the Institute.

This practice is fairly common among some of the small and unscrupulous practitioners as you no doubt know, and I do not believe that all the bulletins, statements of procedure, etc., issued by the Institute have the slightest effect. Most such practitioners do not even read them, or if so it is only to see if they can't cut some more corners.

My suggestion for a remedy is that the Institute establish a force of traveling examiners to drop in on the various practicing members, examine a fair sample of their reports and working papers and render to the Institute a report of any gross malpractices. Members who are the subject of adverse reports should then be entitled to a hearing and if in the judgment of the Institute are found guilty of malpractices they should be expelled and a recommendation sent to the State Board having jurisdiction so that the latter might take action toward revocation of their certificates if the malpractices are sufficiently serious to warrant it.

This suggestion seems a bit farfetched at the moment; however, there are other organizations which do the same thing in policing their membership. The argument would be presented that the accountant's files are sacred and confidential and should not be the subject of examination by any outsider.

However, the National Association of Security Dealers has just such an organization of examiners and I believe the customers' files of such houses are just as confidential as our working papers and reports. This organization can be compared to the Institute in that it is a voluntary membership for the purpose of promoting fair practices and high integrity among all members. It is, however, quite strong in disciplining its members, and to be expelled is practically the same as being put out of business. The Institute, of course, does not yet have sufficient jurisdiction over its members to exercise this authority, but I feel that it would be a benefit to both the profession and the public if such authority could be established.

Many of our independent practitioners are comparable in standards of operation to the security dealer or bond salesman of twenty years ago. The N.A.S. has done much to raise the title of "security dealer" to a high plane and this has been recognized by the public to a great extent. It is conceivable that unless the Institute takes steps to police its ever growing membership that the title C.P.A. may in some quarters be ridiculed nearly as much as the "Bond Salesman" of the twenties.

This letter is intended merely as a friendly exchange of ideas and I should appreciate having your opinion as to the practicability of my suggestion. I realize that it would take many years to perfect the scheme and to sell it to the membership of the Institute; however, I do not see any other practical way to avoid an increasing number of abuses which will greatly hamper the work and prestige of the ethical members of the profession.

The type of practice referred to in the above-quoted letter is startlingly like many of the practices we have taken over. We found the same meticulous care in the computation of prepaid insurance and accruals, while the most important assets were unverified and no investigation was

made as to the bulk of the liabilities, whether direct or contingent. The writer's suggestion for policing the profession may not be practicable, at least for some time, but it certainly is thought-provoking.

I wish to stress again a point brought out in my former article. I do not believe it to be practicable to prohibit or even to discourage special investigations and reports by accountants for the benefit of management, where the extent of the examinations is such that no opinion can be expressed. Some of the most constructive and worthwhile work done by the profession is of this type. But, in the event such reports contain financial statements there can be no objection to making the clarification suggested. The accountant never knows whether the client may change his mind and take the report to his banker.

We are considering the revision of our usual form of audit report in order to bring out more definitely the clarification we seek. The new arrangement, as tentatively decided upon, is as follows: index, opening paragraph, scope of examination, accountant's opinion (or, if the scope is insufficient, "accountant's responsibility"), statements (balance sheet, profit and loss statement, etc.), general comments. An appendix may be added if considered advisable.

I have asked bankers and other interested third parties all over the country which they preferred, the so-called short-form report, or one with rather complete explanatory comments. I do not remember one single preference for the short-form report. Apparently third parties like complete information. Accordingly, we have usually furnished full explanations in the comments of our reports. These comments constituted the first section of the report, and included information regarding the history and organization of the concern, scope of examination, explanations of balance sheet items together with comparison of financial position and application of funds, comments on the profit and loss statement, insurance coverage, and finally the accountant's opinion if warranted by the scope of examination.

The foregoing plan, which we have generally followed heretofore, has two weaknesses, we believe. First, it does not lend itself readily to an accentuation of the clarification we now propose to bring out clearly. Second, it involves too much repetition and verbiage, especially in the balance-sheet comments.

We now propose to include in the comments preceding the statements only the scope of examination and the opinion. All the information relative to the verifications made will be set out in this portion of the comments, and should give a clear picture of the scope of work performed. In the event the examination was not sufficiently complete, no opinion will, of course, be given, but instead a section will be substituted entitled "Accountant's Responsibility." Under this caption it will be explained that the extent of verification was not sufficient for the expression of an opinion, and the deficiencies will be noted. As previously explained, this section will be elaborated sufficiently to avoid giving the impression that less was done than was actually the case. Full and impartial clarification is to be the aim.

In the comments following the financial statements all information believed necessary to a satisfactory understanding of the statements will be included. There will be no repetition and no unnecessary verbiage. This portion of the comments will be completely indexed, since nothing will be included except information pertinent to an understanding of the financial position and results of operations. We believe this information should be made as accessible as possible. Of course I realize that not all reports need be of the so-called long form. Some purposes are served best by the short

form report. This we make by including only the scope, opinion and financial statements.

In closing I should like to give an analogy which I believe may be helpful to an understanding of the necessity for the clarification which has been stressed. It is admitted that the analogy is not exact, but I believe it is close enough to illustrate the point.

A purchaser of real estate not only satisfies himself as to the value of the property, but if he is wise he ascertains also whether he can get a merchantable title. To this end he requires that an abstract of title be compiled. The abstractor's work in this connection may be likened to the work of the accountant in verifying and compiling the financial figures when making an audit. But, although the abstract may give all the changes of title, the careful buyer does not stop there. He takes the abstract to a title attorney for an opinion. If the attorney tells him that some things are good and some are bad in connection with the title, he is not satisfied. He wants to know just what the deficiencies are and how to cure them.

It seems to me that a part of the accountant's functions is likewise to give an opinion in addition to his work on the books. This opinion may, to use an Hibernicism, be to say that he cannot express an opinion. In this case, however, he will state the deficiencies so that the cure is as obvious as in the case of defective title to real estate.

Accountancy has been accorded the dignity of a profession. This recognition did not come because of facility in the mechanical processes of accounting. Machines will make computations faster than the best accountant. The public looks to the accountant for professional judgment, or to say the same thing in another way, the public wants the accountant's opinion.

Increasingly public questions are turning on points that are fundamentally accountancy problems, as witness the last great series of labor disputes. But we have attacks on the profession for lack of professional independence and sense of responsibility. This situation was discussed in the editorial in the October, 1946 issue of the *Journal of Accountancy*. While I certainly do not agree with those who attack the accountant and I believe great progress has been made in the past fifty years, yet I strongly believe that it will be better both for the accountant and for the public if the profession sets its own house in order rather than to wait until some governmental agency either does the job for it or else usurps some of the public accountant's functions.

THE WAR DEPARTMENT CLASSIFICATION OF ACCOUNTS

W. H. Read

THE UNINITIATED who might see a War Department disbursement voucher bearing the account symbolization 707-2753 P 111-08 A 2170502 S 36-030 D.O. Sym. 210-099, or a collection voucher with the symbolization 7-C-161 A 217/80504, would no doubt conclude that account classification used by the War Department consisted of a very complex, if not, perhaps, a useless degree of breakdown in the distribution of army expenditures and collections. However, it is the purpose here to describe the War Department account classification and to show the use made of each element of the code.

During the war the War Department was the largest spending unit of the Federal government, paying approximately three million vouchers per month amounting to four to five billions of dollars. It must be remembered that the War Department comprises only one component of the Federal government and, consequently, must necessarily follow accounting procedures prescribed by the Bureau of the Budget and the Treasury Department as set forth in Budget-Treasury Regulation No. 1, which was issued to implement Executive Order 8512. At the same time it must prepare its accounts to suit the eagle eye of the General Accounting Office which is to audit the accounts of the approximately twelve hundred army disbursing officers. Consequently, War Department account classification is a result of normal Federal procedure plus additions required by operating conditions within the department. The complete classification as explained herein is designed to provide a basis for (a) budgeting, accounting and reporting, (b) designating accountability and responsibility, and (c) exercising managerial control over finances.

The example of expenditure symbolization shown in the first paragraph may be divided into the following elements:

Allotment	Project-Object	Appropriation	Station No.	Disbursing Officer Symbol
707-2753	P 111-08	A 2170502	36-030	210-099

The categories by object, appropriation, and disbursing-officer symbol number are standard for all Federal departments. The allotment, project, and station-number classifications are peculiar to the War Department.

FUND CLASSIFICATION

Each transaction of the Federal government is related to some one fund of which there are three major categories, namely, the General Fund, Special Funds, and Trust Funds. Appropriation symbols and receipt-account symbols, accordingly, are assigned by the General Accounting Office on a basis which will include, among other things, the fund group to which the transactions are applicable. That portion of the appropriation symbol or the receipt account symbol which indicates the fund involved comprises the last four digits of the basic symbol number, the digits of which will fall within one of the following three fund groups:

	From	To
General fund	0000	5999
Special funds	6000	6999
Trust funds	7000	9999

A fund is a sum of money, or other resources, authorized by law to be set aside and to be used or expended only for authorized purposes. The *General Fund* is the

fund into which all receipts of the United States Government are credited (except those from specific sources required by law to be deposited into other designated funds) and from which appropriations are made by Congress to carry on the general and ordinary operations of government. In the example cited above the four digits "0502" indicate that this appropriation is applicable to the General Fund (being withing range 0000-5999) but at the same time serves to distinguish this appropriation, Quartermaster Service, Army, from thousands of other appropriations within the General Fund of the Federal government.

A special fund is a fund into which are credited receipts of the United States Government from specific sources designated by law and which is restricted as to use or expenditure to the purpose designated by law in respect to such fund. The appropriation, 21X6200, Sales of Surplus Property, Foreign Areas Clearing Account, Army, is an example of a special fund.

A trust fund is a fund into which are deposited receipts of the United States Government which are accepted and administered in a trust capacity, and which is expended, used, or invested only in accordance with the conditions of the trust. The appropriation, 21X8915, Funds of Civilian Internees and Prisoners of War, War Department, is an example of a trust fund.

In addition to providing a basis for designating fund classification the appropriation symbolization also indicates the period of availability and department or establishment to which the appropriation applies. To indicate the period of availability of an appropriation for the purpose of incurring obligations,[1] the four basic fund classification digits are prefixed by a single digit (0-9) to indicate the fiscal year of availability of an annual appropriation. Thus the digit "7" in the symbol 2170502 denotes that the appropriation is available for obligation only during the fiscal year 1947 (July 1, 1946 to June 30, 1947). In some cases the letter "X" is used in lieu of the digit indicating fiscal year. This indicates that there is no limitation as to the year in which the funds may be used. In the trust fund example cited above the symbol 21X8915 indicates that this appropriation may be used without regard to year for the return to prisoners of war of funds which had previously been deposited therein, in their behalf.

During the war the arbitrary yearly fiscal period was abandoned in favor of a fiscal period covering the war years. The appropriations for the fiscal year 1942 were extended by Congress for each successive

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[1] The reader is reminded that the term *obligation* and particularly the term *expenditure* as used in Federal accounting practice connotes concepts different from those presented in *Municipal Accounting Terminology*. (Municipal Finance Officers' Association, 1934.)

Obligation in Federal accounting terminology means the amount of an order placed, contract awarded, a service received, or any other transaction which legally reserves an appropriation or fund for expenditure. Obligations incurred during a given period of time which have not been paid at a specific date constitute *unliquidated obligations*. The term *obligation* in Federal usage is somewhat similar to the term *encumbrance* as defined in *Municipal Accounting Terminology*. Both represent purchase orders, contracts, salary commitments, etc., which are changeable to an appropriation and for which a part of the appropriation is reserved. However, the encumbrance ceases to be an encumbrance when it is paid or when a definite liability is set up. On the other hand, an obligation is a charge against an appropriation, and until paid, the off-setting credit appears as an unliquidated obligation. This is a type of liability in itself. When the obligation is paid it is still reported as an obligation charged to the appropriation.

Expenditure in Federal accounting means the actual amount of vouchers paid. It is synonymous with the term disbursement.

The following formulae serve to clarify the above definitions:

Appropriations minus obligations equals unobligated balances of appropriations.

Obligations minus expenditures equals unliquidated obligations.

Appropriations minus expenditures equals unexpended balances of appropriations of which unliquidated obligations are a part.

Normally a Federal appropriation is available for obligation only during one fiscal year. However, obligations incurred against this appropriation may be liquidated by expenditures at any time during the next two fiscal years.

year and were indicated in the appropriation symbolization by two digits, separated by a diagonal, the first digit to represent the first fiscal year of the period and the second digit to indicate the last year. Thus, the Quartermaster appropriation for the period 1942–46 carried the symbol 212/60502, with the "2/6" indicating the fiscal period.

The Government department or establishment to which the funds are appropriated, is denoted by the first two digits of the appropriation symbol. The number "21" has been designated as the War Department number. Examples of appropriation symbolization described above are as follows:

Single year appropriation—Quartermaster Service, Army, 1947	2170502
Multiple year appropriation—Engineer Service, Army 1942–46	212/60905
No year appropriation—Seacoast Defense, General	21X1204

APPROPRIATION CLASSIFICATION

An appropriation is an authorization to make payments out of the Treasury for a designated purpose pursuant to an Act of Congress. For the fiscal year 1947 Congress has made 74 appropriations for the specific benefit of the War Department. Of these the most important are as follows:

Basic Code	*Title*
0102	Contingencies of the Army
0425	Finance Service, Army
0502	Quartermaster Service, Army
0605	Signal Service, Army
0705	Air Corps, Army
0805	Medical and Hospital Department, Army
0905	Engineer Service, Army
1005	Ordnance Service and Supplies, Army
1105	Chemical Warfare Service, Army

Although the appropriation is made by Congress specifically for benefit of the War Department, it does not necessarily follow that the War Department will have funds available to it in the same amount as was provided by Congress. All appropriations for the executive departments of government must pass through the jurisdiction of the Bureau of the Budget before becoming available to the departments. The Director of the Bureau of the Budget must issue an authorization known as an apportionment which designates a portion of the appropriation as available to the department for obligation.

The Budget Officer for the War Department represents the Secretary of War in receiving the apportionments of War Department appropriations authorized by the Bureau of the Budget. Funds are subsequently allocated within a prescribed amount by the Budget Officer for the War Department to operating agencies within the department. Operating agencies are organizational units within the department to which funds are allocated: for example, Office of Quartermaster General, Office of Surgeon General, Commanding General, U. S. Forces in European Theatre.

ALLOTMENT CLASSIFICATION

It is not necessary that each expenditure document show symbolization to indicate apportionment or allocation. However, the fiscal officer of each operating agency makes funds available to subordinate units and to field installations of his agency by means of allotments. An accounting by allotments is necessary in order to provide essential budgetary controls as well as controls over the responsibility for the incurrence of obligations and making of expenditures at different levels within the operating agency. Consequently, provision is made in the expenditure account classification for this information. For example, in the allotment code cited herertofore, 707-2753; the first digit "7" indicates funds are available only during the fiscal year 1947, the "07" indicates the allotment was made by the Office of Quartermaster General (each operating

agency has a two-digit symbol), and the four digits after the dash "2753" denotes the allotment number assigned by the Office of the Quartermaster General.

PROJECT CLASSIFICATION

It is customary in municipal and governmental accounting for expenditure programs to be classified by function and activity. In the War Department this classification is known as project accounts. These accounts are established for use in the fiscal records to produce required data for administrative control purposes and to support future budget estimates. The project account numbers fall into nine groups, or numeric series, as follows:

Major project account class	*Project account number series*
Procurement and production (Chattels)	100
Construction (Structures)	200
Maintenance of structures and operation of utilities	300
Operating (including maintenance of chattels)	400
Education and training	500
Research and development	600
Departmental overhead	700
Direct settlement of terminated war contracts	800
Miscellaneous	900

The following is a brief explanation of the functions or activities included in each of the major project account categories.

Procurement and production includes procurement by purchase or manufacture, of supplies, materials, and equipment for distribution as a part of the army supply program; such as implements of war, equipment, and supplies directly utilized by troops.

Construction covers the acquisition or construction of structures, installations of military facilities, acquisition of lands or interests therein, preparation of construction or installation plans and other preliminary matters, and such initial equipment as may be necessary to provide for the operation of such facilities.

Maintenance of structures and operation of utilities includes the maintenance, repair, alteration, and the operation of utilities.

Operating covers those activities pertaining to general or overhead operations, including miscellaneous procurement not of major significance under the army supply program, such as storage, distribution, issuance, and transportation of military supplies and equipment; transportation of troops; maintenance and repair of chattels; and other similar activities of an operating or service nature.

Education and training includes those activities pertaining to education and training programs, such as the operation of technical and tactical schools, and other formal or field training activities.

Research and development covers activities pertaining to research and development undertaken with a view to improvement in products, materials, or methods.

Departmental overhead includes activities incident to administration of the War Department in Washington, as distinguished from administration of field operations.

Direct settlement of claims under terminated war contracts provides activity accounts for specific accounting purposes to absorb charges resulting from settlement of terminated war contracts on a company-wide basis.

Miscellaneous covers activities of specific accounting nature for special cases not falling within other project account classes.

Project accounts under each appropriation and major group are identified by a three-digit project account number falling within one of the foregoing project account series. The following are illustrative project accounts under the appropriation. "Ordnance Service and Supplies, Army, 1947":

110 Procurement planning
120 Procurement of ammunition
131 Procurement of artillery
132 Procurement of small arms
133 Procurement of tanks and combat vehicles

OBJECT CLASSIFICATION

In compliance with directives of the Bureau of the Budget it is also necessary to classify expenditures by object. This refers to a system of classifying obligation and expenditures in terms of physical or service characteristics as distinguished from the functions and activities furthered thereby. Although information pertaining to object classification is desirable for budget purposes, it is not intended that this classification be anything other than a supplementary classification of accounting transactions which previously or simultaneously have been classified by appropriation, allotment, and project account. The object classes applicable to War Department activities, and their assigned symbol numbers, are as follows:

01 Personal services
02 Travel
03 Transportation of things
04 Communication services
05 Rents and utility services
06 Printing and binding
07 Other contractual services
08 Supplies and materials
09 Equipment
10 Lands and structures
11 Grants, subsidies, and contributions
12 Pensions, annuities, and insurance losses
13 Refunds, awards, and indemnities
14 Interest

These object classes are uniformly applicable to all departments of the Federal government. There are two other object classes in Federal accounting which are not pertinent to War Department operations. These are

15 Public Debt Retirement
16 Investments and Loans

STATION NUMBER AND DISBURSING OFFICER SYMBOL

The other elements of the expenditure symbolization are the station number and the disbursing officer symbol. The "S" in the code indicates that the next group of numbers refers to the station at which the obligation transaction took place. The digits "36-030" denote the station number of the Philadelphia Quartermaster Depot, Pennsylvania. The first two digits "36" indicate the State of Pennsylvania with the following three digits representing the specific station.

Each disbursing officer has a six-digit symbol which identifies his account with the Treasurer of the United States. Most War Department disbursing-officers' symbols fall within the range 210-000 to 214-999. All account symbolization described herein except the disbursing officer symbol is entered on the documents by the agency preparing the documents. The D. O. symbol is added to the voucher symbolization by means of a rubber stamp by the disbursing officer who pays the voucher.

CLASSIFICATION OF COLLECTIONS

Collections are classified by fund and by department or establishment making the collection. For example, in the collection symbol cited heretofore "217/80504, the "21" indicates War Department and the "0504" denotes the appropriation, "Replacing Quartermaster Service, Army." The "7/8" indicates that this is a multiple-year appropriation available for obligation during the fiscal years 1947 and 1948.

Collections may be divided into five categories as follows:

a. *Appropriation reimbursements* are collections, other than expenditure refunds, for commodities, work or service furnished, or to be furnished, to an individual, firm, corporation, or Federal agency, or for the benefit of other appropriations of the War Department which collection may lawfully be covered into the treasury as a repayment to the appropriation. In addition to the appropriation symbolization described above, an appropriation reimbursement is further identified by a collection symbol such as 7-C-161. In this example the "7" indicates the operating agency for which

the collection was made (in this case the Quartermaster Corps). The "C" indicates that the following digits denote the collection account as distinguished from an allotment account used in expenditure accounting. The "161" identifies the account "Collections from sale of subsistence supplies by sales commissaries and collections for meals furnished by army messes."

b. *Expenditure refunds* are collections representing the correction or adjustment of a previously recorded expenditure which can be identified with a specific preceding expenditure voucher. Such collections are symbolized with the identical codes appearing on the respective expenditure vouchers to which the refunds relate, that is allotment, appropriation, project, object, and fiscal station number with specific reference being made to the expenditure voucher in the accounts of an individual disbursing officer.

c. *Appropriation receipts* are collections for the credit to a special or trust fund. Such collections are identified by appropriation symbols as explained heretofore.

The special fund account 21X6200, Sales of Surplus Property, Foreign Areas, Clearing Account, Army and the Trust Fund Account 21X8915, Funds of Civilian Internees and Prisoners of War, are examples of the types of accounts which would be credited with appropriation receipts.

d. *Miscellaneous receipts* are collections which are required by law to be covered into the *General Fund* of the Treasury, and which are not available for expenditure until appropriated by Congress. Such collections become a part of the general revenue of the Federal government as distinguished from appropriation reimbursements, appropriation receipts, and expenditure refunds which are credited to specific appropriations already established by Congress and thus increase the available funds in those appropriations. Unlike the three collection categories mentioned above, miscellaneous receipts are assigned account symbols which have no relation to *General Fund* appropriation symbols. An example of a miscellaneous receipt is a collection for laundry service performed by a government operated plant. The symbol 215215 denotes "Laundry and Dry Cleaning Operations."

e. *Special deposit receipts* are amounts turned over to a disbursing officer to be held in his account for the depositor pending final disposition. Such transactions usually result from situations in which it is impossible, due to lack of information, to classify the collection properly at the time of the collection. Subsequently, the funds will probably be removed from the special deposit account and credited to the proper appropriation or returned to the depositor if the collection was in error. With the exception of receipts resulting from the payroll deductions for items such as War Bonds and Withholding Tax, special deposit receipts in the accounts of army disbursing officers are coded 21F0000 with each disbursing officer keeping subsidiary records to disclose pertinent details in connection with each such collection.

WAR DEPARTMENT FISCAL CODE

Prior to July, 1943, there was no single publication which presented the entire classification of War Department accounts. Appropriation and project accounts were set forth in bulletins known as the "D Series" of Finance Circulars, a publication of the Office of the Chief of Finance. Allotment account codes, if published at all, were included in various memoranda and bulletins issued by the individual technical services, i.e., Quartermaster, Ordnance, Engineers, etc. Fiscal station numbers were published as the "C Series" of Finance Circulars. Object account classes and the collection account codes appeared in a multitude of various and sundry Federal accounting releases.

In July, 1943, the Accounts Division, Office of the Fiscal Director, Army Service Forces (presently known as Office of the Chief of Finance), prepared a single publication which brought together all components of account classification used in War Department accounting. This publication known as the War Department Fiscal Code, Technical Manual 14-700, is published in loose-leaf form so that changes may be inserted to replace obsolete sheets. A new edition of the Fiscal Code is published for each new fiscal year. During 1944, Technical Manual 14-707, Explanation of Appropriation and Project Accounts, was published to supplement the Fiscal Code. This manual provides a detailed description of types of charges and credits to be included under each of the appropriation and project accounts appearing in the Fiscal Code.

PUBLISHED FINANCIAL STATEMENTS OF BANKS

DANIEL BORTH, JR.

An examination of the "statements of condition" published by twenty-five representative Chicago banks as of December 31, 1946 reveals the continued publication of condensed statements with stereotyped arrangement and terminology which compare most unfavorably with the published financial reports of industrial and commercial concerns.[1] The arrangement and terminology of these statements are undoubtedly influenced materially by the current regulations, instructions, and "uniform forms" prescribed by the Comptroller of the Currency. But, to explain the paucity of data, one must probably look to the influence of heritage, traditions, and customs on the current practices of the modern commercial bank. Since the qualitative and quantitative features of the reported financial data correspond closely to those found in the pocket-sized folder usually distributed to depositors, the published statements may be judged fairly in the light of their services to the interests of the depositors as well as the stockholders. Further, with deposits of all classes constituting an average of seventeen times (ranging from thirteen to thirty times) the stockholders' interests (measured by the sum of the capital stock, surplus and undivided profits), it is apparent that the depositor has a real interest in adequate disclosure of material facts of the financial condition and operations of commercial banks.

The order of arrangement and the terminology most frequently found in the published statements of condition of commercial banks are as follows:

Resources

Cash and Due from Banks
United States Government Securities
Other Bonds and Securities
Loans and Discounts
Federal Reserve Bank Stock
Bank Premises[a]
Customers' Liability on Acceptances and Letters of Credit
Interest Earned, not Collected[a]
Other Resources

Liabilities

Capital Stock
Surplus
Undivided Profits
General Contingency Reserve[b]
Discount Collected, not Earned[b]
Reserve for Taxes, Interest, etc.
Dividends Payable[b]
Liability on Acceptances and Letters of Credit
Other Liabilities[b]
Deposits

[a] Position and title if separately reported; otherwise presumably in "Other Resources."
[b] Position and title if separately reported.

The principal features of the above "modal balance sheet,"[2] together with principal variations, and comments by the writer are:

1. The order of arrangement of the "resources" is generally in the order of liquidity, beginning with "Cash and Due From Banks"; whereas the "liabilities" generally appear in reverse order beginning with "Capital Stock" and ending with "Deposits."

[1] A cursory examination of statements of condition published by banks in other leading cities reveals no material differences in the standards of performance.

[2] A term apparently introduced by M. B. Daniels in *Financial Statements* (Chicago: American Accounting Association, 1939).

Variations:

Some banks have adopted an order of arrangement of the "liabilities" beginning with "Demand Deposits" and ending with "Undivided Profits." One leading bank presented its "Loans and Discounts" in lead position and "Cash and Due From Banks" in last position; whereas its "liabilities" were presented in the order of "Capital Stock" to "Deposits."

Comments:

When the item "Bank Premises," etc., is separately reported, it is usually shown immediately preceding the "Customers' Liability on Acceptances and Letters of Credit." This is inconsistent with the order-of-liquidity arrangement.

The placement of the resources of high liquidity in contraposition to deposits and other true liabilities facilitates the usual comparisons by the analyst. There appears no good reason why the same order-of-liquidity should not be equally applicable to all resources and liabilities.

2. Except as implied by the order of arrangement, the resources and the liabilities are not classified on published statements.
3. Though most banks prefer to lump all "United States Government Obligations" under such title, a few banks show separately "U. S. Treasury Bills and Certificates" and "United States Government Bonds and Notes."

Comment:

"U. S. Bills and Certificates" have a relatively higher liquidity than "U. S. Bonds and Notes." In view of the large holdings of "governments" by commercial banks, this distinction has, and may assume greater, significance to the depositor or stockholder-analyst, depending upon the trend of Federal Reserve policy.

4. Some banks report separately "State and Municipal Securities"; while others apparently place such holdings, if any, under "Other Bonds and Securities." Some banks use the term "marketable" in conjunction with the phrase "bonds and securities."

Comment:

The separate reporting of state and municipal securities is desirable, unless the holdings are relatively insignificant. In the industrial and commercial fields, the term "marketable securities" refers to securities of high liquidity which, in the intent of management, are in the "working capital cycle." If similar distinctions were maintained in the field of banking, the term "marketable securities" would be reserved for securities held as secondary reserves in contradistinction to investment assets. Published statements of condition do not usually make this desirable differentiation.

5. The bases of valuation of the various types of bank resources are not stated in the statements of condition or in footnotes thereto.

Comment:

The bases of valuation of the assets should be clearly set out on the statement of condition.

6. Explanatory footnotes are rare, or non-existent.
7. As alternatives to "Interest Earned, not Collected," banks employ the terms "Accrued Interest Receivable," "Accrued Interest," and "Income Ac-

crued but not Collected." This item is not usually set out in a separate statement title, but included in "Other Resources" or in the stated book value of other items. (The specific procedure cannot be determined from the published statements.)

Comment:

This is one instance in which banks could employ a uniform title without destroying the individuality of their statements.

8. "Bank Premises," if separately reported, are usually included at a nominal valuation or an undisclosed basis of valuation. In fully forty per cent of the cases this item was apparently reported in "Other Resources."

Comment:

The practice of valuing bank premises (including furniture and fixtures) at nominal amounts is usually justified on the grounds that such conservative procedures present clearer statements of the position of the depositors. The proponents of this practice point out that the liabilities of a bank are largely, if not entirely, "current" or "demand" in nature. Therefore, they reason that for purposes of ready comparison, all assets should be valued at their approximate demand market values. Bank premises, etc., are deemed to be "frozen" in terms of their availability to meet the current demands of the depositors.

Yet, there are interests other than the depositors which are served by the publication of the statements of condition. The practices of undervaluation would seem to subordinate the principles of adequate disclosure to the cause of the one-account, all-purpose, outmoded statement of condition and its many limitations.

If the undervaluation of certain classes of assets can be justified on the above grounds, it is suggested that "bank premises," etc., be more accurately valued and segregated in the "Non-Admitted" or "Permanent Capital" section of a double-account balance sheet. Otherwise, these revalued assets could be offset by a separate surplus account. In absence of more appropriate data, cost, less depreciation, tax assessment value, or value for income-tax purposes are suggested bases of valuation.

9. "Investments" ***other than*** "U. S. Government Obligations," "Other Bonds and Securities" and "Loans and Discounts" are frequently included in "Other Resources." One Chicago bank reports "Other Real Estate" at a book value of $2.00.

Comment:

The restriction placed by banking authorities on the banks' holdings of real estate (other than bank premises and furniture and fixtures) undoubtedly encourages the understatement of "Other Real Estate" and similar investments. Both stockholders and depositors should be apprised of the estimated present value of such items. Offsetting entries could be made to a separate surplus account such as "Non-Admitted Surplus," or included in an appropriate section of a double-account or triple-account balance sheet.

10. Though "Capital Stock" is the modal term employed, the term "Capital" is frequently used as an apparent alternative.

Comment:

The term "Capital" is used in the report of condition to the Comptroller of Currency to include "capital notes," "income debentures," as well as capital stock. If the reporting banks are using the term "capital" in that broader sense, this distinction should be clearly explained.

11. No subdivisions of Surplus are reported.

Comment:

Some accounting writers characterize the surplus account of a bank as semi-permanent capital, in contrast with undivided profits as "free surplus." Others conceive undivided profits as "earned surplus" in contrast to surplus as a "general reserve" account.

Surplus should be subdivided into at least Paid In Surplus (including premiums on capital stock) and Transfers from Undivided Profits.

12. When provision for contingencies is not reported under a separate title, it is frequently included in such composite titles as "Reserve for Interest, Taxes, Contingencies, etc." and perhaps under "Reserve for Interest, Taxes, etc."

Comment:

The "Reserve for Interest, Taxes, Contingencies, etc." includes elements of proprietary equities, deferred credits, and true liabilities. This practice of lumping such diverse elements under one statement title deserves the condemnation of all interested in adequate disclosure and the improvement of the quality of published statements.

13. Though "Discount Collected, but not Earned" is the modal term employed, the terms "Unearned Discount," "Interest Collected, but not Earned," "Reserve for Unearned Discount," and "Reserve for Interest" are common alternatives. Very frequently this item is included within "Reserve for Interest, Taxes, etc." Fully fifty per cent of the banks surveyed made no separate reporting of this item, but apparently included it within "Other Liabilities" or included it in the income of the current period.

Comment:

The term "Unearned Discount" might be uniformly adopted without serious offense to the cause of individuality.

14. Deposits are most frequently lumped in one amount under the all-inclusive title of "Deposits." Some banks classify deposits between time and demand deposits. Others show three subdivisions—Demand, Time, and U. S. Government Deposits (or "Deposits of Public Funds" or "Other Public Funds").

Comment:

Even the most rudimentary analysis of deposits would require the breakdown of deposits into at least three subdivisions—Demand Deposits, Time Deposits, and Deposits of Public Funds. Five subdivisions of deposits are recommended: Demand Deposits, Time Deposits, U. S. Government Deposits, Other Public Funds, and Due to Banks.

15. Almost all banks follow the practice of indicating (by footnote) the amount of the pledge of U. S. Government Obligations and other Securities to secure public and trust accounts.

FURTHER RECOMMENDATIONS

Further recommendations for the improvement of the published statement of condition follow:

1. The statements should be made more meaningful through the use of modifying and clarifying words and phrases. Questions of readers should be anticipated.
2. The titles and amounts on the statement of condition should be classified, with a careful distinction maintained between "stockholders' equities" and the nonproprietary interests.
3. The "Capital Stock" title should be followed by a statement of the classes of stock, number, and par value of shares outstanding.
4. "Other Liabilities" and "Other Resources" should not be employed as statement titles, unless the inclusions within such titles are clearly indicated. "Other Short Term Liabilities" or "Other Current Liabilities" are suggested as substitutes for a title which frequently includes dividends payable, accrued taxes and other short-term obligations.
5. Very inconsequential amounts should be included in broader titles since the separate reporting of these items adds little or nothing to the accuracy of the analysis.[3]

FAILURE TO PUBLISH STATEMENTS OF INCOME AND EXPENSE

None of the banks published a statement of income and expense, or a surplus reconciliation. Yet the statement of income and expense has equal, if not greater, significance than the statement of condition to the stockholder and depositor. Judgments of the quality of management and the trends of operations can be drawn to a much more effective extent if statements of income and expense are regularly distributed to stockholders. The statement of income and expense furnishes both depositors and stockholders with many more explanations of changes than a mere comparison of two successive statements of condition. Inadequate information leads to misinterpretations and ill-founded conclusions.

Statements of income and expense should be published and should include the principal sources of earnings and recoveries and the principal classifications of expenses and losses presently included in the Statement of Earnings, Expenses, Recoveries and Losses prepared for the Comptroller of Currency. Among other items, the published statement should include:

1. Principal sources of income of the bank.
2. Losses and gains on sale and exchange of investments.
3. Total salaries of officers and total salaries and wages of employees.

A surplus reconciliation should also be published to accompany the statement of condition and the statement of income and expense.

LISTING OF NAMES OF OFFICERS AND MEMBERS OF BOARD OF DIRECTORS

Equally if not more important than the financial data in judging the merits of the commercial banking institution are the attributes of integrity and experience of the members of the board of directors and the officers of the bank. Yet, the usual information accompanying the published statement of condition is markedly deficient in this regard. All too frequently the listings include such appellations as E. F. Gee, "Chicago"; X. Y. Zee, "Attorney"; A. B. Cee, "Industrialist"; John Hancock, "Railway Supplies"; or L. Moe, "Obscure Machinery Co." It is almost as if the reporting banks expected the names of the individuals (so inadequately identified) to be household names with the average depositor. Further, such connections or identifications as "Banker," "Industrialist," "Attorney," and "Railway Supplies," make little or no impression on the average reader. Officers of the bank are listed as merely C. D. Eye, "President," or P. Q.

[3] For example, one Chicago bank lists "Liabilities other than those stated above . . . $163.11" out of total liabilities of $2,097,755,803.41. This bank was not meticulous in the selection of statement titles for much greater sums. This same bank carried a "Reserve for Interest, etc." (note the *etc.*) of $7,072,107.02. Another bank reported "Overdrafts" of $555.54 as a resource out of total resources of $104,089,837.43, yet reported "Reserves" at $300,349.89.

Rie, "Executive Vice-President."

Listings of boards of directors would more nearly accomplish their presumed purpose if the following data represented the minimum requirements for the listing: number of years of service with bank, company connections, type of business, position with company, company address. The minimum listings requirements for the officials of the bank should include the number of years' service with bank, position held with bank (and, if pertinent, positions with previous employers). Consideration might be given to the inclusion of data concerning public offices held and participation in civic and like activities in both the listings of members of board of directors and bank officials.

In most instances, depositors living in medium-sized and large cities probably know even less about the experience and education of the members of the board of directors and officers of the bank than they know about the qualifications of candidates for public office. Yet, both are serving the public, but in different capacities.

COMMENTS BY PRESIDENT

None of the published statements is accompanied by even the briefest comments by the president of the bank. Undoubtedly publication space is a limiting factor. Yet, the type of data usually included in the report of the president of a corporation is much more useful and informative to the average reader than data gleaned from financial statements so inadequate as those of banks. Depositors might well question why they are not currently informed on such subjects as:

1. Trend in rates of returns on investments.
2. Principal changes in the portfolio from date of last statement.
3. Anticipated changes in the types of services offered by the bank.
4. Number, geographically classified distribution and classified occupations of depositors.
5. Number of bank stockholders and the classified geographical distribution of the stock.
6. Changes in membership of board of directors and officials of bank from date of last statement.
7. Methods of valuation of the various resources of the bank (if not included on the statement of condition).
8. General comments on the trend of general economic conditions including their impact on the condition and operations of bank. Specific references to the possible impact on the specific bank may be deemed desirable.

POSSIBLE OBJECTIONS TO ABOVE RECOMMENDATIONS

Perhaps one of the objections to the above proposals will cite the assembly and publication costs of such details. Certainly many of the above facts are or should be assembled currently by any progressive bank. Most of the above data merit publication in a financial report similar to those presently distributed by industrial and commercial firms. On the other hand, the bare essentials of the above recommendations could probably be stated concisely and published in three times the space now occupied by the published statements of condition of many banks.

Some might object to the general publication of such data on the grounds that in any case such information should be confidential to the board of directors, officials, and the stockholders of the bank. But, depositors have a much greater concern in the financial statements of banks than many of the recipients of reports of industrial and commercial enterprises. Furthermore, depositors of a commercial bank are creditors, but no ordinary creditors. A bank is vested with the public interest to a far greater extent than the average industrial and commercial firm. Disclosure by banks is not only desirable, it is a responsibility.

CONCLUSIONS

Bankers are frequent speakers at meetings of credit men, corporation executives, and accountants on such subjects as "What the Banker Excepts to See in Financial Statements" or "What a Financial Statement Should Show." The standards of performance outlined for industrial and commercial concerns in these talks usually are much higher than the standards of commercial banks as judged by their published financial statements. Yet, considering the public-interest aspects of the banking institution, should not the standards of performance of banks exceed those of industrial and commercial concerns? Improvements in the published financial statements of commercial banks are long overdue!

AN EFFICIENT APPROACH TO THE TEACHING OF ACCOUNTING

RUSSELL BOWERS

IN ACCOUNTING as in almost no other field can the extremes of good and bad education be illustrated. Education in accounting, like education in anything else, should be subjected to the test of a critical theory. Former theories of education stressed the classical in the sense of the literary, linguistic, and the so-called cultural disciplines. Gradually the natural sciences encroached on these disciplines, and as the shift toward the scientific took on momentum there arose, mainly with its roots in psychology, the educational theory that only specific techniques and skills were transferable from the classroom to the world of later experience. Education was conceived as specific training for the work to be undertaken after graduation from school. This theory is now attested by the multiplicity of college courses in innumerable allegedly specialized subjects for the preparation of the specialist for his job. Great danger lies in this educational philosophy. Mere mention of this danger here should suffice to indicate the inadequacy of some present methods in education on the professional level. The great number of specialized courses in college programs often leads one to suspect an uncritical acceptance of that long since discarded theory, by competent educators, to the effect that an education consists in the accumulation of knowledge. Nor does it help much to modify the statement slightly to include the acquisition of a number of specialized skills. It should be admitted that it is futile to try to teach a student all that he might need to know; we should rather teach him to learn for himself when he needs to know.

For purposes of professional education the subject matter should be classed in two categories. While the difference may be one of degree, the distinction at some level is not only sound; it is indispensable. Let it be clear that we are concerned here only with useful skill and knowledge, or better, the ability to recognize and solve a problem intelligently, in professional practice. First, there is the skill or knowledge which the student can postpone learning, in the interest of total cost and economy in learning, until he needs to use it. Most of this training is more specific and extensive than colleges can reasonably hope to undertake. Second, there is the skill or knowledge which the student can learn with profit long in advance of his need to use it. Great economy in education can be attained generally if education on the higher professional level is confined to the latter. Recognition of this distinction and its careful application would no doubt result in some revision of the accounting curriculum in many cases. The result would be to offer fewer specialized courses which attempt to teach "as much as possible in the short time available" of what the student needs to know because it is used in the profession. More time would be devoted to the fewer remaining courses. Such courses would be directed toward minimizing the factual and possible duplication. They would concentrate on carefully selected fundamentals which are indispensable to good practice and would concentrate also on the development of such abilities as can be learned effectively long in advance of their probable use by the particular person. The principal aim of any

course would be to teach methods of discerning, formulating, and solving professional problems each of which is presumed to be somewhat novel and different. Much of the novelty which accompanies important professional problems rarely can be learned effectively in advance of facing such problems in the profession. The courses would develop basic ways of thought which can be used profitably in later learning, learning on the job, rather than drill in the use of certain highly particular techniques.

To fortify the argument for such a teaching program let us consider also the percentage of students studying accounting who will either become in fact, or who even intend to become, professional accountants with the C.P.A. The overwhelming majority of students who study accounting do so for the understanding it can develop in the handling of business problems and not in order to become professional accountants. A tabulation of the professions of graduates of colleges who use accounting and whose training includes a year or more of accounting would be enlightening in this respect. But even if the sole motive were to train professional accountants the method still offers the best.

If accounting training is to be on the professional level as part of any profession the student can be taught most effectively if he is presented with a business situation in its entirety early in the course and the curriculum. The student may be presented with various "total" problems, but situations must be selected and modified in order to secure the brevity required for classroom purposes. The desirability of selecting suitable situations which are devoid of needless, time-consuming features, needless repetition, and yet which have the appeal of being recognizable as actual business situations, throws a great burden upon the teacher. Current practice in the accounting profession by the instructor is not enough to give him all he needs for this task. Time and space here permit of only one application of this suggested approach to teaching. First should be settled what is the main purpose for which an accounting system is kept. This purpose must be so general as to lend itself to the easy "tacking on" or the later elaboration and development of numerous subordinate and incidental problems. It is here suggested that this total problem of accounting is the measurement and the reporting, as adequately as feasible in the light of the cost of doing so, the periodic income or loss of a particular, presumably profit-making, business firm.

This general purpose can be approached best by supplying adequate total activities of the firm, say in summary form, and requiring that the student tabulate systematically the relevant data (and above all distinguish the irrelevant) and follow through to a final report. This final report will involve a brief but critical consideration of the income statement and balance sheet. It will eliminate any impression that general accounting is something to be distinguished from cost accounting and other specialized branches or even "advanced" accounting. Much time can be saved by integrating the phases of general and cost accounting as conventionally taught. The writer believes that, for instance, it is not possible to teach an appropriate conception of business expense with the customary approach in the basic course. He has too often found "advanced" students who were wholly incapable of determining expenses because they were "taught" in isolation from a manufacturing problem. The lax, uncritical use of the word *expense* as found in most introductory textbooks has few parallels elsewhere. Manufacturing expenses are not, as every accountant knows, expenses at all. Proper presentation of the accounting problem in the introductory course will not tempt a

student to treat them as such. Recent trends which present the so-called cost approach to accounting move in the right direction.

Statement preparation with this in mind will confront the student during the first few weeks of his introductory course with the total problem. Before production and sale of any product can be carried out there must be an investment of funds in the various factors of production. These represent cost factors to be assigned to the product. Production and sale do not typically occur simultaneously. Production is for inventory stock; sale usually comes later. The assignment of cost ranging from direct labor and materials to the depreciation of plant, to a variety of inventories or assets, is a first requirement. This has not been found to be too difficult or too uninteresting for beginners; often however it has been found contrary to their own immediate hunches. Great patience can be afforded in this because the student is learning rapidly some principles of accounting which later he will not need to discard nor to modify appreciably. The following may state tersely enough some of the relationships which are too often delayed in teaching until the so-called advanced courses, and this results in great waste of a student's time.

Starting with a balance-sheet approach, there are two types of asset, funds and unamortized costs. It is the latter which requires intensive treatment; the former will prove to be comparatively obvious. Costs are debited in the accounts because at the time of purchase of the particular productive factors the cost is the only, or at least the best, objective measure of the worth of whatever is received at that time. Thereafter it is the investment (cost) that is to be accounted for. The initial recording of a transaction need, and in fact should not, raise the question of charging an asset account or an expense account. It is a cost account that is charged. But subsequently the books and the business facts are taken under examination. From the cost originally debited there arise subsequently four possibilities which must be scrutinized. First, nothing may have occurred which alters the facts or values (cost) as originally recorded; in which case the cost is deferred in its existing form as an asset. Second, the physical factor or service equivalent may have been consumed or otherwise have disappeared. Then we inquire into what has happened to the factor. If it has been consumed in the creation of any inventoriable good which is still on hand, then the cost factor has become an asset in some other form, though quantitatively the factor still is measured by original cost properly apportioned. Third, the original cost factor may have been sold in its original form, or it may have been sold as an indistinguishable part of some product, or its service may have expired in making an indirect contribution to revenue. In any of these instances the cost factor is an *expense* and, accordingly, is assignable to revenue. The fourth possibility is that the value of any prospective service of the factor has expired without making a contribution either to actual or to prospective revenue, in which case the cost factor has become a loss.

This approach will transcend such unsatisfactory distinctions as expense vs. expenditure and capital vs. revenue expenditure. In the meantime it can be stressed to great advantage to the beginner that a cost incurred can be validated or supported equally well by either a cash payment or by the recognition of a legal liability. The divorce of cost from payment, so far as periodic matching within fiscal periods is concerned, is readily clinched by the whole balance sheet approach; likewise the recognition of revenue or income supported by a receivable instead of cash can be driven home. It is not obvious to a beginner that

the accrual of interest receivable supports a recognition of income even though not collected in cash.

A common "complaint" of a student who is presented with a total business situation rather than a minute exercise (likely to have only academic interest while pretending to be practical) is that he is confused. Some questioning usually reveals that he is really puzzled, perplexed, not confused. Perhaps he has used the wrong word. Puzzled he should be. He will learn effectively in no other way. His rather necessary nausea over being confronted with a situation which is baffling and overwhelming at first eventually subsides and then he works in real earnest. He knows he is acquiring a power over situations which later he could not master without this preparation.

PACKING HOUSE ACCOUNTING

Louis E. Zraick

The subject of packing-house accounting is very broad. If only those phases are discussed which relate to the slaughtering of cattle and calves, no more can be done than to touch upon the more important salient points. This segment of the meat-packing industry has been selected for discussion because bovine animals furnish nearly half of the meat produced in the United States today and it is the source of about fifteen per cent of the farmers' gross cash revenue from the sale of farm products. Although cattle slaughtering is perhaps one of the oldest of industries, it was not until the late twenties that individual plants in the United States assumed sufficient size and importance to warrant the introduction of accounting techniques and the adoption of cost control. Even today little progress has been made along this line notwithstanding the existence of approximately 12,000 slaughterers, or more, who in 1945 were receiving subsides in one form or another from the Federal government.

In the installation of an accounting system, the certified public accountant or management consultant should be familiar with the activities of the client, the sources of supply, problems of marketing, methods of distribution, the outlets for the client's products, and with problems of personnel. If such knowledge is lacking, the accountant may experience difficulty in satisfying management that he possesses the necessary qualifications to handle the engagement properly.

DESCRIPTION OF ACTIVITIES

Although we are primarily concerned in this article with the accounting problems related to the slaughtering of cattle and calves, it may be well to discuss briefly other activities which the board of directors of a packing-house plant may be empowered to undertake.

The corporation may raise, purchase, or otherwise acquire, all kinds of poultry, game, and fish. It may likewise dress, prepare for use, pack, salt, smoke, can, or otherwise preserve, store, or market meat, poultry, game, and fish. Most slaughterers are empowered to buy, sell, and trade in all of the ordinary supplies, products, and by-products of the slaughtering and meat-packing business. In addition to the functions mentioned, the corporation is usually empowered to acquire, and to employ, all suitable means, equipment and facilities for carrying on its business and for the transporting of supplies, materials, or products. The suggestion is made that the accountant discuss the foregoing activities with the client before the system of accounts is installed. It is frequently necessary for the accountant to provide for future needs at the time the system is designed.

MARKETING OF BOVINE ANIMALS

Today most cattle and calves are purchased at public stockyards or at markets by "order buyers" who usually purchase for slaughterers located elsewhere. The purchase of livestock is an important function of the meat-packing business since accurate determination of the grade of live cattle cannot be established at the time of purchase. It is only after bovine animals have been slaughtered that the grade of beef can be ascertained either by federal inspectors, if the plant is federally inspected; or by slaughterers, if a non-federally inspected plant is operated.

It may be well to mention other channels through which cattle and calves may move

to market. The most important and frequently used methods are: sale by producer to the packer at a public stockyard; sale at a market to a packer located at the market; sale directly to the packer by the producer at the packer's plant; sales negotiated at the producer's farm by a buyer representing the packer; sale through local dealers who buy from producers, sort the animals purchased, and then resell directly to slaughterers located elsewhere; and, finally, sale at local auctions where purchases are made by packer representatives or dealers.

THE PURCHASE AND RECEIPT OF LIVESTOCK

We are now concerned with a topic that usually requires a great deal of study by management as well as its auditors, namely, the purchase and receipt of livestock. Our discussion of this subject will be confined for the most part to cattle and calves, although many of the principles involved will apply equally as well to other species. Most accountants agree that adequate records should be provided for the control of the purchase and receipt of merchandise. The accounting procedures surrounding this important function are especially important in the meat-packing industry. Under normal conditions they should furnish the accountant with assurance on the following fundamental matters:

1. The sum of all expenditures and charges directly or indirectly incurred in bringing the carcasses to the door of the slaughterer should be included in the cost of livestock.
2. The cost of livestock should include not only the invoice cost, but buying commissions, cost of feed and bedding en route, cost of transportation, ferriage costs, and the market expenses incurred at the stockyard.
3. The vendors' invoices must be originals and should contain no clerical errors.
4. A record of each purchase of livestock should be made in a receiving book or in sheets in a loose-leaf binder which serve the same purpose.
5. All items purchased but not sold should be reflected in the inventory at the time the books are closed.
6. Cattle in transit should be reflected on the balance sheet, and, if not paid for, the liability should be set up on the books.

The proper functioning of a plant is predicated upon the keeping of accurate records in the receiving department. The procedures in a slaughtering establishment must be so designed that every animal purchased can be traced from the time of receipt until the time of disposal. This will require close cooperation between the accounting department and the other departments in the plant to insure that not only prompt and correct execution of the paper work has been achieved but likewise there exists a rigid accounting control over the livestock. To facilitate this objective many slaughterers have found it advantageous to maintain a record sheet which contains the arrival of cattle daily. As the receipt of livestock is so closely related to the slaughtering, many companies prepare a summary of the killings each day in such manner as will disclose original car numbers, the car number later used, the name and address of the supplier, the date of the invoice, the number of head shipped, the number of head killed that day, the arrival weight, and data covering transportation costs. This columnar record is indispensable in achieving inventory control. The information may be kept in a bound book, if desired, but the essential data should be shown.

THE HANDLING OF SALES

It may be well to devote some consideration to the handling of sales in a meat-packing plant. At the outset it should be observed that even a comparatively small slaughtering establishment may serve several hundred customers regularly every one or two weeks. Sales may be made to

purveyors of meals, retail butcher shops, war procurement agencies, wholesalers, peddler truck salesmen, contract schools, and to vessels. Statistical records are frequently kept by slaughterers. These may disclose the number of carcasses sold each day and the weight of same, wholesale cuts,[1] by-products disposed of, and sundry data as to the quantity of beef sold in each grade.

Let us now consider one method by which sales are recorded in a meat-packing plant. Sales are entered daily in a sales register in two classifications, cash sales and credit sales. Each sales ticket is numbered in sequence. The total of cash sales is deposited daily and a record is made in the cash book. The total of credit sales is recorded either weekly or monthly and frequently by means of a journal entry. Accounts receivable control account is charged at that time. Daily postings from sales tickets are made to individual customer accounts. In the preparation of the statement of income, profit and loss, deductions from gross sales will usually be made for claims and allowances and actual freight and cartage outbound.

THE HANDLING OF BY-PRODUCTS

The accounting procedures for the handling of by-products[2] are complex, and they depend to a large extent upon who owns the livestock and what agreements have been made for the disposal of by-products. Written contracts, often in the form of leases, are executed between the slaughterer and the landlord, and sometimes between the slaughterer and a custom slaughterer. The term, custom slaughterer, refers to services by a slaughterer, otherwise than as an employee, in connection with the killing of cattle or calves for the owner thereof. Beef, or veal which is derived therefrom, is dressed by the custom slaughterer. Custom slaughtering usually commences when the cattle or calves are driven into the killing pen. The service is completed when the beef or veal carcasses are hung in the chilling room where they remain, at the request of the owner, for at least 48 hours. Custom slaughtering usually includes the weighing of dressed carcasses,[3] the proper handling of hides, and the chilling of such by-products as the owner may be required by agreement to accept.

During World War II, the remittance for by-products retained from custom slaughtering was dependent upon the type of slaughtering establishment kept by the custom slaughterer, and the type, grade, or weight of the animal slaughtered. The maximum amount which could be charged or received by any person for custom slaughtering of cattle or calves was fixed by the Office of Price Administration. Although this condition no longer exists, it is reasonable to expect that some of the trade practices under price control may continue. For this reason it may be well to discuss this subject further at this time.

If the slaughtering plant at which the slaughtering services is performed is equipped with facilities for the commercial rendering of waste fats into tallow and grease, the custom slaughterer usually assumes ownership of all edible and inedible by-products including the hide (except in the case of calves, dressed, hide-on) derived from

[1] The term, wholesale cuts, means, and is limited to, any of the following cuts derived from the beef carcass, but excluding the offal: hindquarters, round, trimmed full loin, flank, flank steak, short loin, sirloin, cross cut chuck, regular chuck, foreshank, brisket, rib, short plate back triangle, and arm chuck.

[2] Edible by-products include brains, hearts, livers, lips, tongue and the like; inedible by-products include hide, fats, bones, and tankage.

[3] Slaughterers of bovine animals weigh beef carcasses hot within the hour of slaughter, after washing and trimming and with the shrouds on or off according to the likely grades. From the gross hot weights, separate tares are deducted to reach recorded hot weights. These hot weights are then shrunk 1½% to arrive at chilled dressed weights.

the animals slaughtered by him, and the slaughterer remits to the owner thereof, at an agreed upon price in dollars per hundred weight, dressed carcass, hot weight basis.

If the custom slaughterer is not equipped with facilities for the commercial rendering of waste fats, the remittance to the owner is considerably less.

In practice, the charge for slaughtering usually exceeds the value of by-products retained from custom slaughtering. The owner of the cattle is billed for the net amount due, and at the time remittances are received by the custom slaughterer, the sales account is credited. It is then necessary for the accountant to make an adjusting entry to set up the value of by-products on the books of the custom slaughterer. The value set up is treated as an additional purchase, and the corresponding credit is made to the sales account. When by-products are sold, the sales account is credited for the amount realized. If the cattle which have been slaughtered are owned by the slaughterer, the net realizable price for each by-product should be credited to the cost of livestock to obtain the net cost of dressed beef.

CHART OF ACCOUNTS

The general objective of any system should be to record and clearly indicate the financial position of the organization as reflected in the balance sheet, and the profit or loss statement, by accounts in sufficient detail to analyze the major kinds of income and expense. With this viewpoint in mind, the writer recommends the chart of accounts which follows. It provides the framework around which other accounts may be added, if needed.

ASSETS

101 Cash on Hand
103 Cash in Bank
105 Notes Receivable
107 Accrued Interest Receivable
109 Accounts Receivable—Customers
111 Loans and Exchanges
113 Inventory—Merchandise
115 Inventory—Supplies
117 Investments—Temporary
125 Land
127 Buildings—Stockyard
129 Reserve for Depreciation of Buildings
131 Machinery and Equipment
133 Reserve for Depreciation of Machinery and Equipment
135 Automobiles
137 Reserve for Depreciation of Automobiles
139 Office Equipment
141 Reserve for Depreciation of Office Equipment
143 Deposits
151 Unexpired Insurance
153 Prepaid Fuel, Gas, Oil
157 Prepaid Taxes

LIABILITIES AND CAPITAL

201 Notes Payable—Banks
203 Notes Payable—Others
205 Accrued Interest Payable
207 Drafts Payable
209 Deposits Against Shipments
211 Accounts Payable
213 Accrued Old Age Tax (Federal)
215 Accrued Unemployment Insurance (Federal)
217 Accrued Unemployment Insurance (New York)
219 Income Tax Withheld (Federal)
221 Accrued Payroll
223 Accrued Expenses
251 Capital Stock—Common (Issued and Outstanding)
253 Earned Surplus

INCOME

301 Sales—Cash
303 Sales—Credit
305 Sales Allowances
307 Transportation Charges
309 Sales to Retail Stores Owned and Operated by Company
311 Cash Value of By-Products—Custom Slaughtering

COST OF SALES

401 Purchases—Livestock
403 Buying Commissions
405 Freight and Trucking Inward
407 Market Expenses at Stockyard
409 Feed
411 Plant Supplies
413 Purchases Meat Cuts and Trimmings
415 Non-Meat Packing Items
417 By-Products Retained from Custom Slaughtering
419 Subsidies Received (No Longer in Effect)
421 Wages—Direct Labor (Pro-Rate to Departments)
423 Wages—Foremen and Assistants
425 Overtime Premiums—Plant Personnel
427 Light, Heat, Power, and Gas
429 Water
431 Cold Storage, Ice, Refrigeration
433 U. S. Grading Costs
435 Repairs
437 Compensation Insurance (Treat as Production Expense)
439 Bonding and Product Insurance
441 Public Liability Insurance (Treat as Production Expense)

443 Social Security Taxes (Pro-Rate to Departments)
445 Unemployment Insurance—Federal (Pro-Rate to Departments)
447 Unemployment Insurance—New York (Pro-Rate to Departments)
449 Rabbi Supervision
451 Telephone and Telegraph (may be pro-rated to departments)
453 Depreciation of Buildings
455 Depreciation of Machinery and Equipment
457 Rent (If Building is Not Owned)
459 Property Taxes
461 Property Insurance
463 Property Repairs and Maintenance
465 Sundry Plant Expenses

SELLING AND SHIPPING EXPENSES

501 Wages—Drivers
503 Auto Expenses—Gas and Oil
505 Auto Expenses—Repairs
507 Licenses
509 Garage Expenses
511 Insurance—Autos and Trucks
513 Depreciation of Autos
515 Licenses
517 Salesmen's Road Expenses
519 Sales Assembly and Loading
521 Travel and Entertaining Expenses
523 Advertising—Newspapers
525 Advertising—Radio
527 Advertising—Bill Boards and Handbills
529 Bad Debts

GENERAL AND ADMINISTRATIVE EXPENSES

601 Salaries—Officers (Pro-Rate to Departments)
603 Salaries—Office
605 Traveling and Entertaining Expenses—Executives
607 Rent—Office
609 Stationery, Printing and Postage
611 Dues and Subscriptions
613 Legal and Collection Expenses
615 Auditing
617 Taxes—Sundry
619 Depreciation of Office Equipment
621 Other Office Expenses
623 Bank Service Charges
625 Interest Expenses
627 Contributions

SUPPLEMENTARY CHARGES AND CREDITS

701 Federal Income Taxes Paid
703 Dividends Paid
705 Expenses Applicable to Prior Years
707 Subsidies Received (Prior Periods)
709 Income from Non-Meat Packing Operations
711 Profit and Loss Credits (Such as Bad Debt Recoveries, Refund of Taxes Paid in Prior Years, Reduction in Reserves for Contingencies, etc.)

The accounting profession and the slaughterers have long been in need of a simple chart of accounts that is neither elaborate nor complex. It is believed that this article fulfills a long felt need. The distribution of costs and expenses to the various account classifications in the general ledger will always be a matter of prime importance to both the practitioner and his client. The degree of interest in this phase of accounting will depend in large measure upon the system of accounting in use, the policy statements which have been adopted, and the familiarity of the accountant with industrial problems and with methods of doing business in this industry.

CONCLUSION

In this article, the discussion for the most part has been confined to bovine animals. No mention has been made of the accounting procedures that are required when branches are operated, or when the management is engaged in the slaughtering of species other than cattle or calves. The chart of accounts contained in this article will require modification if mixed products are handled or non-meat packing operations take place.

It is the writer's opinion that packing-house accounting need not be complex if accountants make an effort to familiarize themselves with some of the peculiarities inherent in this industry and with terminology in use.

WOMEN'S ACCOUNTING SOCIETIES

MARION A. FRYE

DURING THE PAST few years, as a member of The Ohio Society of Certified Public Accountants, I have been continually surprised in learning of the few individual members who—outside of officers and directors—know anything of the two women's accounting organizations. This article is written for the individual members' enlightenment and as a voice of all women CPA's in appreciation of the benefits received through membership in State societies.

The year 1946 was the 50th anniversary of the granting of the first CPA certificate following the passage of the first CPA law. How many readers of this article realize that during these fifty years, over 26,000 certificates have been granted and only about 300 of the 26,000 were granted to women?

The following material is, in the main, taken from a pamphlet issued by the American Woman's Society of Certified Public Accountants and the American Society of Women Accountants.

Women in any field or profession have problems and responsibilities that are peculiarly their own. This is especially true in accounting where women form a smaller minority group than in any of the other leading professions or executive groups.

To fill the need for work that could not be expected of existing accounting organizations, and was not their responsibility, the American Woman's Society of Certified Public Accounts was organized to advance the professional interest of women certified public accountants. Though of necessity small in membership, it renders a unique service to the profession and to business and industry, as well as to women.

The program of the Society is based on three primary objectives:

(1) Greater interest of women in accounting and in higher attainments of the profession
(2) More enlightened public opinion concerning the ability and achievement of women in accounting
(3) Increased number of women as members and active participants in programs of technical accounting organizations.

To provide an effective medium through which the first-named objective might be more readily accomplished, the American Woman's Society of Certified Public Accountants organized an affiliate, the American Society of Women Accountants, which through different classifications, provides membership for women who are actively engaged in any phase of accounting, who are instructors or students of accounting, or who otherwise have a substantial interest in accounting.

Through well-organized and regularly conducted monthly meetings, local chapters in larger cities of the country offer technical and educational programs that are of material aid in improving efficiency of its members, good fellowship and exchange of ideas among women with mutual interests, and encouragement to its members to work toward obtaining certified public accountant certificates.

Each of the two Societies is a separate and distinct entity, developed under its own by-laws and governed by its own officers and board of directors. There is, however, a very close relationship between the two, characterized principally by a fine spirit of cooperation in working toward the achievement of a mutual ultimate aim—equal recognition of women as accountants.

As further evidence of its continuing interest and cooperation in activities of ASWA chapters, the American Woman's

Society of Certified Public Accountants has established the AWSCPA award, consisting of a silver trophy and $50.00 in cash, awarded annually to the ASWA chapter obtaining the highest number of points based on chapter activities.

Public relations has long been one of the most important functions of both Societies, Their efforts and facilities have been combined in a joint program directed toward a more enlightened public opinion concerning the ability and achievements of women in accounting.

A survey made several years ago as part of that program revealed that schools of commerce and business administration throughout the country admittedly were discouraging women in the study of accounting, and some actually were denying them the privilege. Contacts made with deans, instructors, and counsellors have been maintained in various ways with gratifying results.

In the belief that the soundest way to insure women's prestige in accounting is to encourage the superior young women to prepare for the profession and to provide guidance for them in the selection of proper training, programs have been conducted for students in high schools and colleges, presenting information concerning the many phases of accounting, the opportunities it affords women, and qualifications required.

Another important survey was made in 1945 to determine the reaction of the profession to women as staff members of accounting firms. It was followed up in 1946 with another to determine the future possibilities for those women for whom war time emergencies had opened a door previously closed to them. The pleasing results of both surveys appeared in publications of other accounting organizations and have been reprinted in a pamphlet issued jointly by the American Woman's Society of Certified Public Accountants and the American Society of Women Accountants.

Notable contributions toward a more enlightened public opinion have been made through special public relations programs conducted by ASWA chapters, to which business executives and representatives of other accounting or related organizations are invited.

One of the most important adjuncts of the public relations program is *The Woman C.P.A.*, issued bimonthly as the joint official publication of the American Woman's Society of Certified Public Accountants and the American Society of Women Accountants. Its name denoting the professional attainment of members of the former and the most likely aim of members of the latter, *The Woman C.P.A.* presents as regular features: Tax News, a comprehensive analysis of developments in Federal taxation; What's New in Reading, a thumbnail review of accounting literature and related articles; Coast-to-Coast, news concerning members and chapter activities; and a technical article of timely importance. In addition there are editorials and news articles on developments in the profession and the progress of women in accounting.

Complimentary copies of *The Woman C.P.A.* are sent to the presidents of State Societies, chairmen of State Examining Boards, national officers of other accounting organizations, and to a selected list of prominent accounting firms and business executives; also to a large number of libraries of schools and colleges, and deans, instructors, and counselors.

The programs of the American Woman's Society of Certified Public Accountants and the American Society of Women Accountants purposely do not cover professional problems that are shared by men as such problems are adequately handled by other accounting organizations. Both Societies, however, recognize that those problems are the inescapable responsibility

of women as well as of men and they encourage not only their own members but all women accountants to join those organizations and to take an active interest in their programs.

Most of the women certified public accountants belong to state societies and a surprising number to the American Institute of Accountants and to the National Association of Cost Accountants.

There are over 750 members of the American Society of Women Accountants belonging to established chapters in Indianapolis, Chicago, New York, Spokane, Detroit, Los Angeles, Terre Haute, Seattle, Atlanta, San Francisco, Grand Rapids, Cleveland, and Muskegon, and other new chapters are in process of organization.

Because of the combined efforts of these two women's accounting societies and their method of organization and working together, we feel confident we have not contributed to the existing problem of State Legislatures in the many states now confronted with the serious aspect of passing legislation for two organizations in the same profession seeking proper recognition.

The writer has only prefaced and ended what has already been published in a pamphlet entitled *Women's Accounting Societies* issued jointly by the American Woman's Society of Certified Public Accountants and its affiliate, the American Society of Women Accountants.

THE TEACHERS' CLINIC

S. Paul Garner

Editor's Note: Several members of the Association have suggested that a section of the Accounting Review should be devoted to notes and short articles specifically on the subject of teaching accounting. Many of the experienced teachers, as well as some of the new ones, have developed devices and techniques for the presentation of certain of the knotty aspects of accounting, and it is felt that such suggestions might well be made available to the other members of the teaching profession through *The Teachers' Clinic.* Accordingly, contributions are hereby invited. Please address all correspondence to S. Paul Garner, School of Commerce and Business Administration, University, Alabama.

FORMULAE FOR CALCULATING STANDARD COST VARIANCES

The method used for calculating price and quantity variances in standard cost procedure deserves more explanation than is given it in cost accounting textbooks and in current accounting literature. The student in a standard-cost accounting course is likely to be perplexed by the glibness of the instructor in arriving at the amount of variation attributable to price on one hand and quantity on the other, especially if the novice has a mathematical background. The formula used in commercial practice demands a reasonable explanation since it is mathematically questionable. The purpose of this article is to justify the current practice, and to point out the theoretical issues that are involved.

Let us make the following assumptions: a standard quantity of 100 units and a standard unit price of \$1.00, or a total standard cost of \$100. During the period actual quantity used is 110 units at an actual price of \$1.10, or a total cost of \$121. The material price and quantity variances are usually calculated as follows:

(1) 110×\$1.10 = \$121 (Actual cost of material used) (Actual quantity×actual price)
(2) 110×\$1.00 = \$110 (Standard cost of material used) (Actual quantity×standard price)
(3) 100×\$1.00 = \$100 (Standard material cost allowed) (Standard quantity×standard price)

Material price variance = \$121 − \$110 = \$11
Material quantity variance = \$110 − \$100 = \$10

Obviously, the price variation contains a definite bias, so the student raises the question: Why cannot Step 2 in the formula be manipulated to read "Standard quantity×actual price" to show price and quantity variances? Using the latter method the calculations would be as follows:

(1) 110×\$1.10 = \$121 (Actual cost of materials used) (Actual quantity×actual price)
(2) 100×\$1.10 = \$110 (Actual cost of standard materials) (Standard quantity×actual price)
(3) 100×\$1.00 = \$100 (Standard material cost allowed) (Standard quantity×standard price)

The variations would be determined thus:

Material quantity variance = \$121 − \$110 = \$11 (Step 1 minus Step 2)
Material price variance = \$110 − \$100 = \$10 (Step 2 minus Step 3)

The second method shows a definite bias in favor of the quantity variation. The instructor therefore finds himself in a mathematical dilemma, which can only be solved by following the suggestion of the student of mathematics, namely, by determining a third variation attributable to the joint effect of an increase in price and an increase in quantity. The following formulae are thus suggested:

(1) Price variance = Standard quantity×(actual unit cost minus standard unit cost).
(2) Quantity variance = Standard unit cost ×(actual quantity used minus standard quantity)

(3) Variation attributable to the increase in price on the increase in quantity (or to the increase in quantity on the increase in price = Increase in unit cost × increase in quantity

Solution:

(1) $100 \times \$.10 = \$10$ (Material price variance)

(2) $\$1.00 \times 10 = \$10$ (Material quantity variance)

(3) $\$.10 \times 10 = \$1$ (Variance attributable to change in price on change in quantity)

Since three possible methods have been shown, the problem now becomes one of giving a logical explanation for the adoption of the first method in standard-cost procedure.

One may begin the discussion by the elimination of the methods which, if adopted, would lead the cost accountant into practical difficulties. The last method contains two weaknesses: first, the additional work required to calculate the third variable; and second, the determination of the share of the third variable attributable to price increase and the share to quantity increase. One might come to the conclusion that the amount of $1.00 should be divided into two equal parts, allowing one-half to each of the price and quantity variables. In the example it would be $.50 for price and $.50 for quantity, or a total variation of $10.50 for price and $10.50 for quantity. This conclusion is reached by assuming that price and quantity have equal significance, an assumption which would generally be difficult to defend.

Some accountants, aware of the mathematical biases in calculating price and quantity variations, compute only the total amount of variation, or $21, and do not attempt to calculate the amounts of the individual variations attributable to price and quantity. But if the amounts of the individual variations are sufficiently significant to require administrative attention, this expedient will not, of course, prove satisfactory.

The method showing a quantity bias often cannot be applied satisfactorily because of practical difficulties. In the case of the many companies using standard costs, materials are priced at standard upon receipt of goods from the vendor. Quantity standards cannot be applied until a later date, and in some cases cannot be fully determined until an inventory of work in process has been taken. The result in practice is the adoption of the first method because price variances can be developed independently, and they include, in addition to the price variance for a standard quantity, the price variance for any excess quantity of material placed in process. When the actual quantity of material used is determined at a later date, it is accordingly priced at standard.

Another reason for the adoption of the first method lies in the advantage of uncovering and determining responsibility for variances as quickly as possible so that corrections can be instituted without delay. Price variances can be calculated upon receipt of material, while the quantity variations can be ascertained as materials go into process, or at least as goods are completed; thus, the responsibility for price variation can be assessed at once against the purchasing department or other responsible persons. Sometimes adjustments in the selling price can be recommended immediately if the variation is caused by a rising or lowering price level for materials. The quantity variance, on the other hand, is generally chargeable against the department processing the material, and such responsibility is best determined by reporting quantity variance at standard price. The department which actually uses the material is responsible for price variations only to a limited extent (except where the department makes use of substitute materials having higher or lower standard prices than those called for in the engineering specifications).

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SOME OBSERVATIONS ON AN INTENSIVE UNIVERSITY COACHING COURSE FOR THE CPA EXAMINATION

The great increase during the past ten years in the volume and variety of work to be performed by public accountants has attracted much interest in this professional field. Some of the men who have entered public accounting during recent years have already secured certificates as certified public accountants. A much larger number are still to be classified as "non-certified" public accountants. The size of this latter group is not readily determinable. Its existence is recognized, officially or otherwise, in every state, as evidenced by the interest in "dual" accountancy legislation, and the development of many state, and even a national organization, of non-certified public accountants.

It is the opinion of the author that the majority of these non-certified men would like very much to be certified, and that many of them, through experience and individual study, or previous training, are reasonably well qualified accountants. The major obstacle in their path toward recognition as certified public accountants is undoubtedly the required professional examinations.

The author is also strongly of the opinion that a definite service will be rendered to the profession by encouraging the non-certified accountant to qualify himself for, and to take, the certified public accountancy examinations.

The need for intensive review preparatory to sitting for the examinations is generally recognized by persons familiar with the broad scope of the material covered on the examinations. It is the unusual case that the daily practice of any individual public accountant will be sufficiently varied to qualify him for the examinations.

A question frequently asked of certified public accountants by prospective candidates for the examinations is, "what is the best way to review for the examinations?" Replies to this question usually take one of the following forms:

(1) Obtain several past examinations, study them, and work the problems.
(2) Subscribe to one of the correspondence school review courses.
(3) Get a certain book, or books (the list will vary, of course), study them and work as many problems contained therein as possible—or, perhaps, all the problems.
(4) Arrange to go to Blank University (if the appropriate course is offered) and enroll in the intensive review course conducted there for practicing public accountants.

The writer will consider these suggestions only in relation to the "practice" part of the examinations. At first impression, any one of these recommended procedures may seem to be equally sound advice. There are without doubt numerous present certificate holders who followed one of the first three methods of review, and there are an increasing number who have followed the fourth procedure. The author, after several years of successful coaching experience, has definite convictions on the matter of effective review procedure. A discussion of these convictions follows.

The prospective candidate in attempting to follow any one of the first three review methods listed above has the tendency to become discouraged and not qualify for the examinations, or to take them without proper preparation and fail to pass, with resultant loss of interest—this, in spite of the fact that he may be a better-than-average practicing accountant. To attempt review by working past examination problems is, generally speaking, in the opinion of the writer, a gross waste of time and effort. There are exceptions to this, certainly, but the usual "practice" problems do not fall into any clear-cut classification. These problems are more likely to be a combination of two or more types,

or to be unusual in some major aspect. The examiners are quite reasonably interested in observing the candidate's reaction to an unusual set of facts. Accounting practice, though governed by certain generally recognized principles and procedures, can never be reduced to a set of "rule-of-thumb" procedures. The candidate, if persevering, will have mastered the particular past examination problems he has studied. His review will not have been entirely wasted, but will be effective only at the cost of excessive time and individual effort. The particular problems he has mastered may not appear on the examination he takes, and he is likely to find himself in a weak position with respect to the variety of problems which are presented to him for solution.

There are several reasonably effective correspondence review courses available to the candidate. The chief criticism of this review method, which may be voiced with equal force against any of the first three named procedures, is that the reviewer is left too much "on his own." The opportunity to have questions answered is not immediately available. Group discussion, with its stimulating benefits, is not generally possible. It is too easy to postpone planned review, day by day. The most severe criticism, however, is that the candidate may study a work-sheet solution and supporting schedules of a given type of problem and fail completely to recognize the order in which such a work-sheet should be constructed. This may be true in the case of working papers for the preparation of consolidated statements, and working papers to determine unit costs in process-cost type manufacture, to name only two possibilities.

If textbooks recommended for review study are wisely selected by a person familiar with available current books in the field, and if this person will select certain chapters for particular study, and also list problems for practice work, the third method may be rather effective. It is subject, however, to the comments in the preceding paragraph. The particular disadvantage of this method, in addition, is that the candidate is likely to find himself with several books—more than he can possibly cover in the time available. He can do one of two things in this case—cover, too hurridly, all the suggested material, or concentrate on only a part of this material. In either case, he is likely to find himself at the examination date only partially prepared.

The fourth method of review is to be preferred where such a course is available. The organization of intensive training courses to assist public accountants in preparing themselves for professional examinations has proved quite successful, for example, at one major southeastern university. This service has been viewed with favor by the practicing accountants within the three states from which enrollees have been attracted.

The organization of such classes may take one of two general forms. The course may be set up as a full-time undertaking for the enrollees, or it may be organized so that the men enrolled may continue at their regular employment in addition to doing the work in the special review class. The first of these plans is much to be preferred. If a majority of the class, however, is to come from the city in which the class is held, it may seem unwise to attempt an organization on a full-time basis. Review courses preparatory to the "practice" part of the examinations will likely be of paramount interest. Courses in law, auditing, and accounting theory may also be organized, but these are generally less effective.

The course with which the author has worked has been developed as a full-time undertaking for the enrollees. It covers a period of two weeks, which would seem to be an absolute minimum, and is offered

twice each year approximately three weeks before the date of the examination. The aim of the course has been directed toward preparing the candidates for the "practice" part of the examinations, with minor attention to "accounting theory," and none at all to "law" or "auditing." Only those persons who meet the state requirements for, and plan to take, the CPA examinations are admitted to the class.

A daily schedule for such a class may be as follows: Lecture and discussion of assigned topics, two to four o'clock daily; supervised problem work, seven to nine o'clock each evening; study of assigned text material, and preparation of assigned problems, eight to twelve o'clock each morning. Where possible, an adequate supply of textbooks, together with solution manuals, should be provided by the university.

The content of the course should include those phases of accounting practice most frequently covered on the examinations. There are several topics which cannot be overlooked, such as consolidations, municipal accounting, industrial cost, and fiduciary accounting. There are other topics in which some degree of individual choice may be exercised.

The two-hour lecture period should be devoted largely to blackboard work by the instructor. Clear-cut problems of a definite type should be used exclusively for this purpose. These problems should not be taken from previous examinations. The development of satisfactory problem material for a course of this type requires much thought and effort. The problems assigned for study and solution by the members of the class should also follow this general rule. The problems selected should illustrate, as clearly as possible, generally accepted principles and procedures. Excessively detailed problems should be avoided. The attention of the class should also be directed toward learning to set up effective working papers for each type of problem considered, and to recognize problems by types. To attempt a problem solution on the formal examination with poorly designed working papers results too often in failure to produce an acceptable solution within the allowed time. The order in which work should be done on a given type of problem, and the order in which supporting schedules are prepared, should be emphasized.

A further definite service the instructor can render the individuals in his class is to help them develop self-confidence. Many good accountants fail the examination because of nervous strain. It is the rule, rather than the exception, that the average adult fearfully anticipates an examination. This may be a carry-over from secondary school experience. Even college graduates, however, are not immune to nervous tension. The instructor should work to overcome this feeling. The use of average-length, clear-cut problems helps to do this, and leaves the candidate in a much better mental condition to cope with the unusual transactions which he is likely to find on the examination. The point should also be emphasized that the particular examination they are preparing for is *not* all important. Rather than this, they should be encouraged to develop the attitude that the examination is just another set of problems to work—that they are to do the very best they can in the time allowed, and if they get the "breaks" they will pass. If not successful, they will be able to try again, six months later. It should be emphasized that it is no disgrace to fail these examinations on the first attempt, or even on the second.

Though an individual may derive considerable personal satisfaction from having passed all four subjects in a single attempt, the wisdom of attempting to do this is questionable, especially in those states allowing credit on two parts. To attempt to pass all of the examination is to double the

material which should be reviewed just prior to the examinations. It will also tend to increase the nervous pressure under which the candidate will work during the examination. The result is, too often, failure to pass enough subjects to get any credit at all.

There is a feeling on the part of many people who have taken the CPA examinations and failed to pass, that the allowed time, particularly for the "practice" sections, is far too short. Most of the men enrolled in the intensive review classes are likely to have this point of view. A sounder viewpoint is that the allowed time is entirely adequate for the candidate who is well informed on the topics covered, who is reasonably adept in the handling of figures, and conversant with effective work-sheet procedures. The instructor in the review class should touch on this point several times during the course. He may have to exercise quite a bit of salemanship, but at the conclusion of the course the enrollees should have lost their fear of the time factor. When this has been done the nervous strain under which the candidate works will be reduced immensely. The average person, thus conditioned, will probably turn out more work, and of definitely better quality, than if he had concentrated on "hurrying."

The usual pertinent advice relative to writing examinations, or working paper construction, is also to be mentioned, as follows:

(1) When the examination questions are distributed the candidate should read them in sufficient detail to classify the problems by general types. This classification should be marked on the question sheet.

(2) The candidate should select a problem he knows he can handle, and work it first.

(3) The candidate should read the problems very carefully before beginning his working papers, and should give careful thought to the manner in which the papers are to be prepared.

(4) The candidate should use plenty of paper; he should not crowd his work.

(5) The candidate should try to keep his work well organized and orderly.

There is one final matter of personal advice which the instructor should not overlook. The enrollees should be convinced of the importance of getting plenty of rest immediately before and during the examinations. The importance of this matter cannot be overemphasized; it may well be the difference between success and failure. A strange hotel room, excitement, and the recognition of the importance of getting a reasonable amount of sleep, are likely to cause persons not usually so troubled to be wakeful. The instructor should talk to the candidates about this matter.

These matters of personal counselling, and of developing self-confidence, from a service point of view, are perhaps equally as important as the question of instruction in technical solution rules and procedures.

If well organized and effectively conducted, these intensive review courses should receive the cooperation of state societies of certified public accountants, and should reflect to the definite credit of the university. The instructor will find these classes most interesting, and the members thereof thoroughly appreciative of his best efforts.

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University of New Mexico

A TECHNIQUE TO INTRODUCE STUDENTS TO GOVERNMENTAL FUND ACCOUNTING

Practically all universities and colleges which offer a course in governmental accounting prescribe as a requisite at least two semesters or quarters of elementary accounting. In fulfilling these requirements the student is usually introduced to ac-

counting principles as they apply to commercial and industrial enterprises. The student thus absorbs the accounting principles which evolve around one complete set of double-entry records for a business enterprise. There is, as a rule, no introduction to the fund concept as it applies in the field of governmental accounting.

When the student starts the course in governmental accounting the most difficult, single obstacle confronting him is the transition from the concept of "accounting as a single group of records for a whole enterprise" to "the governmental fund concept of accounting." As all persons familiar with governmental accounting are aware, the fund concept involves separate accounts for each legally created fund of a governmental unit.

How to assist the student in obtaining a rapid and firm grasp of the principles involved in the governmental fund concept of accounting is a teaching problem which every instructor in the field of governmental accounting faces. The writer, after considering the approaches to the topic in the several texts in the field, and finding them lacking, has developed a technique for making the transition which considerably accelerates the student's grasp of fund accounting.

THE APPROACH

In an effort to overcome the obstacles mentioned above, the writer's approach to governmental accounting has been developed on a bookkeeping rather than theory basis. The first lecture is devoted to a brief outline of the basic principles of governmental fund accounting and the underlying forces which caused the development of funds. The student's attention is called to the similarities which exist between private business accounting and governmental accounting rather than the differences. The fund concept of accounting is presented as being the adaptation of private financial accounting principles to governmental activities. It is then pointed out that from a bookkeeping standpoint governmental accounting is "accounting for entities within an entity" and that a separate set of double-entry records must be maintained for each legal fund or internal entity of a government. In order that the student may have an opportunity to see the bookkeeping or accounting nature of this last statement a demonstration problem is then presented.

THE DEMONSTRATION

In order to make the transition from private business accounting to governmental accounting as logical as possible the following situation is assumed:

The City of "X" has prepared a trial balance of all its general-ledger accounts as of the end of the fiscal year, July 31, 1947. There has been no attempt in the past to prepare financial statements on a fund basis. The City wishes to have its statements prepared in accordance with accepted governmental-accounting principles and, in order to attain this end, engages the services of a qualified accountant. It is assumed that all account balances are correct as presented and that the accountant's only problem is to allocate asset, liability, and equity accounts to the proper funds.

In order to determine the correct allocation of assets, liabilities, and equities as between funds the accountant makes a detailed examination of the accounts and prepares the schedules which follow. An examination of the city charter and ordinances reveals that the following funds are required by law:

(1) General Revenue Fund
(2) Park Fund
(3) Central Garage Fund

In addition, the accountant deems it advisable that a general fixed assets group of accounts should be established.

City of X
Trial Balance as of July 31, 1947

Account	*Debit*	*Credit*
Cash on Hand	$ 4,500	
Cash in Bank	49,000	
Ad-Valorem Taxes Receivable	12,000	
Allowance for Losses on Ad-Valorem Taxes Rec.		$ 2,500
Investments	25,000	
Inventory—Gasoline and Oil	750	
Supplies on Hand	4,450	
Allowance for Depr.—Land, Bldgs. & Equipment		25,000
Land, Buildings & Equipment	275,000	
Accounts Payable		2,000
Warrants Payable		7,000
Surplus		334,200
	$370,700	$370,700

At this point the student's attention is called to the similarity between the above trial balance and those with which he has become familiar as a student of private-business accounting. It is emphasized that the fund concept of accounting entails nothing more than allocating the ownership of assets as required by law. Then, in order to demonstrate and further emphasize this point, schedules are presented which show the distribution of each asset, liability, and equity account to the proper fund. These schedules follow:

Distribution of Cash

	Total	*General Revenue*	*Central Garage*	*Park*
Cash on Hand	$ 4,500	$ 2,500	$ 500	$1,500
Cash in Bank	49,000	40,000	5,000	4,000
	$53,500	$42,500	$5,500	$5,500

Distribution of Ad-Valorem Taxes Receivable and Allowance for Losses

	Total	*General Revenue*	*Park*
Ad-Valorem Taxes Receivable	$12,000	$9,600	$2,400
Allowance for Losses	2,500	2,000	500
Estimated Realizable	$ 9,500	$7,600	$1,900

Distribution of Investments

	Total	*General Revenue*	*Park*
Investments	$25,000	$20,000	$5,000

Distribution of Inventory—Gasoline and Oil

	Total	*Central Garage*
Gasoline and Oil	$ 750	$ 750

Distribution of Supplies on Hand

	Total	*General Revenue*	*Central Garage*	*Park*
Supplies on Hand	$ 4,450	$ 3,000	$1,000	$ 450

Distribution of Land, Buildings and Equipment and Allowance for Depreciation

	Total	*General Fixed Assets*	*Central Garage*
Land	$ 20,000	$ 12,000	$ 8,000
Buildings	$180,000	$113,000	$ 67,000
Equipment	75,000	25,000	50,000
Total	$255,000	$138,000	$117,000
Allowance for Depr.	25,000	-0-	25,000
	$230,000	$138,000	$ 92,000

Distribution of Accounts Payable

	Total	Central Garage
Accounts Payable	$ 2,000	$ 2,000

Warrants Payable Distribution

	Total	General Revenue	Park
Warrants Payable	$7,000	$5,000	$2,000

Distribution of Surplus

Total	General Unapp.	Revenue App.	Gen. Fixed Assets Unapp.	Gen. Fixed Assets App.	Central Garage Unapp.	Central Garage App.	Park Unapp.	Park App.
$334,200	$45,100	$23,000	$ -0-	$150,000	$ -0-	$105,250	$5,400	$5,450

The writer normally finds that the problem up to this point, plus a discussion of the factors underlying fund accounting, consumes two fifty-minute lecture periods. The next lecture period is devoted to demonstrating to the student the manner in which the individual items as distributed in the above schedules may be used to prepare statements of financial condition for each fund. In the course of this demonstration the fundamental idea of each fund as a separate accounting entity within the governmental unit is emphasized.

Each statement is constructed separately from the foregoing schedules as presented below:

City of X
General Revenue Fund
Statement of Financial Condition
July 31, 1947

ASSETS

Current Assets:				
Cash on Hand			$ 2,500	
Cash in Bank			40,000	
Ad-Valorem Taxes Receivable		$ 9,600		
Allowance for Losses		2,000	7,600	
Total Current Assets				$50,100
Investments				20,000
Other Assets:				
Supplies on Hand				3,000
Total Assets				$73,100

EQUITIES

Current Liabilities:				
Warrants Payable				$ 5,000
Surplus:				
Unappropriated			$45,100	
Appropriated:				
Reserve for Investments	$20,000			
Reserve for Other Assets	3,000			
Appropriated Surplus			23,000	
Total Surplus				68,100
Total Equities				$73,100

City of X

Statement of General Fixed Assets
July 31, 1947

ASSETS

Land	$ 12,000
Buildings	113,000
Equipment	25,000
	$150,000

EQUITIES

Invested in General Fixed Assets	$150,000

City of X

Park Fund
Statement of Financial Condition
July 31, 1947

Current Assets:			
Cash on Hand			$ 1,500
Cash in Bank			4,000
Ad-Valorem Taxes Receivable		$2,400	
Allowance for Losses		500	1,900
Total Current Assets			$ 7,400
Investments			5,000
Other Assets:			
Supplies on Hand			450
Total Assets			$12,850

EQUITIES

Current Liabilities:			
Warrants Payable			$ 2,000
Surplus:			
Unappropriated		$5,400	
Appropriated:			
Reserve for Investments	$5,000		
Reserve for Other Assets	450		
Appropriated Surplus		5,450	
Total Surplus			10,850
Total Equities			$12,850

The next step is to present the statement of financial condition for the central garage fund. Upon presentation of all the statements the student is told that in the future a separate double-entry set of records is maintained for each of these funds and that these records may be established from the statements as presented above. The statements are then followed by journal entries, posted to "T" accounts for each fund. The student can readily observe from these entries as posted that a double-entry set of records has been established by funds. It has been the writer's experience that this presentation of the fund concept of accounting is of great assistance to the student in grasping the material in the governmental accounting textbook used.

City of X

Central Garage Fund
Statement of Financial Condition
July 31, 1947

ASSETS

Current Assets:				
Cash on Hand			$ 500	
Cash in Bank			5,000	
Inventory—Gas & Oil			750	
Total Current Assets				$ 6,250
Fixed Assets:				
Land			$ 8,000	
Building	$67,000			
Equipment	50,000	$117,000		
Allow. for Depr.		25,000	92,000	
Total Fixed Assets				100,000
Other Assets:				
Supplies on Hand				1,000
Total Assets				$107,250

EQUITIES

Current Liabilities:		
Accounts Payable		$ 2,000
Unappropriated Surplus	4,250	
Appropriated Surplus:		
Invested in Fixed and Other Assets	101,000	105,250
Total Equities		$107,250

In order to consolidate the above presentation in the student's mind a problem similar to the previous demonstration problem is then assigned as a home problem. This latter problem provides the student with a trial balance of all the asset, liability, and surplus accounts of a city. Bases of distribution are included and the student is required to prepare (1) separate statements of financial condition for each fund involved and (2) the journal entries required to establish each fund as a separate accounting entity. The problem is limited to general and special-revenue type funds.

It will be observed that in the foregoing demonstration problem general revenue, special revenue, and working capital funds have been included. This provides the instructor with an opportunity to discuss in brief outline the nature of the various fund classifications recommended by the National Committee on Municipal Accounting.

In presenting this discussion it is the custom of the writer also to bring in special assessment, utility, trust and agency, and bond funds for brief comment. The general bonded-debt group of accounts is also remarked upon and its nature explained. It usually takes three lecture periods to cover all the material outlined in the foregoing paragraphs.

ANOTHER PROBLEM

The writer has observed that the average student has another obstacle to surmount in comprehending the operations of governmental fund accounting as presented in the popular texts. This latter obstacle is an understanding of the terminology and manner in which the budget enters into fund accounting procedures. None of the widely used texts on governmental accounting, in the writer's opinion, do a satisfactory job in this respect. One, for example, brings the budget in after funds are discussed, while another fails to cover fully the budget and fund accounting in the introductory material.

In order that the student may obtain some familiarity with budgetary terms, and an understanding of the manner in which budgetary accounts function, a demonstration problem is presented. This problem includes budgetary data for four funds, a general revenue and three special revenue funds. In addition the student is provided with the actual operating data for the period.

As a preface to the problem, the various accounts used in governmental budgetary accounting are introduced and defined. It is also pointed out to the student that budgetary accounting demands a completely separate group of accounts within each fund for which a budget is prepared.

The demonstration problem is then presented and budgetary and proprietary

entries are prepared for each fund. These journal entries are then posted to "T" accounts in order that the student may observe the actual bookkeeping operation of proprietary and budgetary accounts.

Upon completion of the posting process, statements are prepared which demonstrate to the student the usefulness of the budgetary accounts. The statements prepared are:

(1) Comparison of Appropriations, Expenditures, and Encumbrances.
(2) Comparison of Estimated and Actual Revenues.

These statements are followed up by taking a trial balance of each group of fund accounts, and the student's attention is called to the fact that two separate double-entry groups of accounts are maintained within each fund. The interrelation of the two groups is then established through tracing each account into the statements as prepared.

This demonstration problem is extremely simple with only a very few entries for each fund. In this manner the student is not confused by the introduction of complex transactions while he is trying to grasp the principles involved in double-entry budgetary accounting.

It has been the writer's experience that students introduced to the fund concept of governmental accounting, and the use of budgetary accounts, in the above manner understand the material in any of the popular texts satisfactorily. It has been found that two additional lecture periods are necessary to establish satisfactorily the function of the budgetary accounts in the student's mind.

Some instructors may feel that five lecture periods devoted to preliminary material take too much time away from the text itself. The writer believes, however, that the student's understanding of the text material is considerably accelerated and enhanced by this approach. Although it is the same in principle as that used in most texts, it stresses simplicity and basic accounting techniques. In the writer's opinion, the benefits derived from its use have far outweighed the time lost on text material.

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PROFESSIONAL EXAMINATIONS
A Department for Students of Accounting

HENRY T. CHAMBERLAIN

THE FOLLOWING problems were prepared by the Board of Examiners of the American Institute of Accountants and were presented on May 14, as the first half of the C.P.A. Examination in accounting practice. Candidates were allowed four and a half hours to solve both problems. Problem 1 carried a weight of thirty points and problem 2 a weight of twenty points.

A suggested time schedule is given below:

Problem 1—150 minutes
Problem 2— 75 minutes

No. 1

Following are trial balances of A Company and its subsidiary, B Company, at December 31, 1945. From them and the other information given, prepare a columnar consolidating work sheet showing in separate columns a consolidated balance-sheet and a consolidated income statement at December 31, 1945.

Debits	*A Company*	*B Company*
Cash	$ 545,200	$ 267,300
Receivables, customers	187,000	375,400
War bonds	1,575,300	556,000
Inventories	398,200	146,800
Investment, B Company—		
Bonds	198,000	
Capital stock	300,000	
Advances	226,600	
Investment, A Company bonds (at par)		30,000
Fixed assets	2,311,000	714,700
Unamortized bond discount		2,700
Goodwill		90,000
Cost of Sales	3,280,500	1,676,100
Selling and administrative expense	333,000	261,000
Depreciation expense	184,000	42,600
Interest expense	24,000	19,700
Bond discount amortized		300
Amortization of premium on B Company bonds owned	2,000	
Provision for income taxes	600,000	420,000
Dividends paid	100,000	20,000
Total debits	$10,264,800	$4,622,600

Credits	*A Company*	*B Company*
Accounts payable	$ 79,200	$ 69,500
Accrued income taxes	624,800	431,400
Other accrued expense	10,000	4,000
Advances from A		226,600
Reserve for bad debts	2,500	3,200
Reserve for depreciation	1,420,600	302,300
Reserve for postwar adjustments	1,000,000	445,000
First-mortgage 3% bonds	800,000	
First-mortgage 4% bonds		200,000
Capital stock	1,000,000	200,000
Paid-in surplus	50,200	
Earned surplus 12/31/44	424,700	90,200
Sales	4,797,300	2,644,500
Interest—war bonds	20,400	5,000
—intercompany bonds	7,200	900
—advances to B	11,700	
Dividend received	16,200	
Net profit		
Total credits	$10,264,800	$4,622,600

A Company on January 1, 1937, purchased from security holders its 81% interest in the capital stock of B Company and 90% interest in B Company bonds, the total consideration being $516,000 of which $216,000 was allocated to the bonds. The purpose of the purchase was to obtain additional manufacturing facilities and B Company's established markets for products similar to A Company's regular line. The earned surplus of B Company as shown by its books on December 31, 1936, was $150,000. The 25-year first-mortgage 4% bonds had been originally marketed on December 31, 1929, to net 96¼.

For several years a part of the output of B Company has been an intermediate product sold to A Company at a uniform markup of 20% (on sales). Sales of this character recorded on B Company's books were $258,000 for 1945, of which $64,500 remained in A Company's inventory at the end of the year; the corresponding amount in A Company's inventory at the beginning of the year was $82,000.

A Company has made advances to B Company on which the latter pays interest

semi-annually at the rate of 6% per annum. During 1945 (on July 1) an additional $50,000 was advanced.

A Company constructed a building, at a cost of $100,000, which, on January 1, 1940, was turned over to B Company for its use at a price of $120,000. Depreciation of 3% has been accrued thereon since that date.

No. 2

The stockholders of the Farm Equipment Co., vendors of horse-drawn machinery, resolved at their meeting of June 13, 1946, to liquidate as of August 31, 1946. The May 31, 1946, financial statement on which the stockholders predicated their decision to liquidate follows:

Balance Sheet
As at May 31, 1946

Assets		
Cash		$ 36,750
Accounts receivable		33,500
Inventory of merchandise		120,250
Total current assets		$190,500
Furniture, fixtures, trucks, etc., less reserve		20,500
Land and building, less reserve		30,000
		$241,000
Liabilities		
Accounts payable, including taxes		$ 15,600
Interest accrued on mortgage		250
Accrued payroll		450
Total current liabilities		$ 16,300
6% Mortgage due January 1, 1948		10,000
Capital stock, 4,200 shares, par value $50		210,000
Surplus—balance at Jan. 1, 1946	$24,050	
Less loss for 5 mos. to May 31, 1946	19,350	
Balance		4,700
		$241,000

According to the stockholders' resolution of June 13th, the liquidation is to be effected by the directors (who, being principal stockholders, serve without compensation) as follows:

"The $15,000 cash bid of a local real estate operator for the equity in the land and building is to be accepted immediately, the purchaser to assume the outstanding mortgage of $10,000 and to pay all expenses of title search, closing, etc. Title is to pass as of June 30, 1946, and Farm Equipment Co. is to pay mortgage interest accrued to that date. Insurance and taxes prepaid prior to June 30, 1946, are to be absorbed by vendor.

"All merchandise on hand is to be offered for sale at 80% of regular sales prices; such special sale to be conducted from June 17th to June 26th (both dates inclusive). These sales are to be on a strictly cash basis and to be final—no returns permitted.

"An auction is to be conducted on June 29th on the company's premises and is to include all merchandise not disposed of during the previous 10-day sale. All furniture, fixtures, and trucks and other equipment are also to be auctioned at this time. All sales made at such auction are to be strictly cash and final.

"Any merchandise still remaining unsold after the auction is to be advertised daily in newspapers of neighboring communities and disposed of at best prices obtainable.

"All employees, except the manager-bookkeeper, are to be given immediate notice of their release, at the close of business on June 30th, and to be paid up to July 31st. The manager-bookkeeper is to be given immediate notice of his release effective August 31, 1946, on which date he will be paid his salary for the four months ending December 31st.

"A liquidating dividend (final) is to be paid on September 2, 1946, as of August 31, 1946, to all stockholders of record as at August 31, 1946."

Sales of merchandise to regular customers on credit for the period from June 1st to 16th inclusive amounted to $9,500 and were merged with the liquidation sales. All merchandise unsold after the auction was finally disposed of in August.

Depreciation subsequent to May 31, 1946, may be ignored.

Following is a summary of the cash transactions for the three months ended August 31, 1946:

Cash Transactions

June	*Dr.*	*Cr.*
Cash sales—regular	$ 5,850	
Accounts receivable collections	23,500	
Cash sales (special 20% discount)	47,350	
Cash received from auction sales—		
Merchandise	31,500	
Furniture, fixtures, and trucks	8,250	
Auctioneer's commission and expenses		$ 2,850
Interest on mortgage paid to May 31		300
Proceeds from sale of land and building	15,000	
Officers and office salaries (including separation payments and $450 accrued payroll)		5,550
Accounts payable		15,600

July		
Accounts receivable collections..	1,250	
Post-auction sales—		
Merchandise.................	3,500	
Furniture, fixtures, and trucks.	2,300	
Salary of manager-bookkeeper for July......................		400
August		
Accounts receivable collections (final)......................	3,700	
Collection agency fees..........		375
Salary of manager-bookkeeper (including separation payment)		2,000
Legal fees and expenses re liquidation........................		675
	$142,200	$27,750

You are required on the basis of the foregoing to prepare:

1. Necessary adjusting entries.
2. A columnar worksheet showing the postings of cash transactions, the adjustments, and the cash available for final distribution.
3. A statement of loss on realization and expenses of liquidation.
4. A statement showing the amount of cash to be distributed as a liquidating dividend to each of the following stockholders:

A..........................	1,600 shares
B..........................	1,200 "
C..........................	900 "
D..........................	360 "
E..........................	140 "
Total....................	4,200 shares

Solution to Problem 1

A Company and Subsidiary Consolidating Working Papers
Year Ended December 31, 1945

Assets	*Company A*	*Company B*	*Adjustments and Eliminations* Dr.	*Adjustments and Eliminations* Cr.	*Consolidated Balance Sheet*
Cash..........................	$ 545,200.00	$ 267,300.00			$ 812,500.00
Receivables, customers............	187,000.00	375,400.00			562,400.00
War bonds.......................	1,575,300.00	556,000.00			2,131,300.00
Inventories:					
Company A....................	398,200.00				398,200.00
Company B....................		146,800.00			146,800.00
Investments, B Company					
Bonds (90%)..................	198,000.00			(B) $ 20,430.00 (A) 177,570.00	
Stock (81%)..................	300,000.00			(I) 283,500.00	16,500.00 G
Advances.....................	226,600.00			(L) 226,600.00	
Investment, A Company bonds (par)		30,000.00		(G) 30,000.00	
Fixed assets....................	2,311,000.00	714,700.00		(F) 20,000.00	3,005,700.00
Unamortized bond discount........		2,700.00		(A) 2,430.00	270.00
Goodwill........................		90,000.00			90,000.00
	$5,741,300.00	$2,182,900.00			$7,163,670.00
Liabilities					
Accounts payable.................	$ 79,200.00	$ 69,500.00			$ 148,700.00
Accrued income taxes.............	624,800.00	431,400.00			1,056,200.00
Other accrued expenses............	10,000.00	4,000.00			14,000.00
Advances from A..................		226,600.00	(L) $ 226,600.00		
Reserve for bad debts.............	2,500.00	3,200.00			5,700.00
Reserve for depreciation...........	1,420,600.00	302,300.00	(F) 3,600.00		1,719,300.00
Reserve for post-war adjustments...	1,000,000.00	445,000.00			1,445,000.00
First-mortgage 3% bonds..........	800,000.00		(G) 30,000.00		770,000.00
First-mortgage 4% bonds..........		200,000.00	(A) 180,000.00		20,000.00
Capital stock					
A Company....................	1,000,000.00				1,000,000.00
B Company....................		200,000.00	(I) 162,000.00		38,000.00 M
Paid-In Surplus..................	50,200.00				50,200.00
Earned surplus—A Company.......					
Balance, 12/31/44..............	424,700.00		(H) 61,722.00 (F) 17,000.00 (B) 20,430.00 (C) 2,270.00		323,278.00 S
Dividends paid	*100,000.00				100,000.00* Sred
Net Income, 1945...............	429,300.00		(K) 16,200.00	(F) $ 600.00 (C) 2,270.00 (J) 189,702.00	605,672.00 S (cons. net income)
Earned surplus—B Company					
Balance, 12/31/44..............		90,200.00	(I) 121,500.00 (D) 16,400.00	(H) 61,722.00	14,022.00 M
Dividends paid................		*20,000.00		(K) 16,200.00	3,800.00*M red
Net Income, 1945...............		230,700.00	(J) 189,702.00 (E) 12,900.00	(D) 16,400.00	44,498.00 M
	$5,741,300.00	$2,182,900.00			
Reserve for inter-company profit in inventory......................				(E) 12,900.00	12,900.00
			$1,060,324.00	$1,060,324.00	$7,163,670.00

Assets	*Company A*	*Company B*	*Adjustments and Eliminations* Dr.	Cr.	*Consolidated Balance Sheet*
Sales	$4,797,300.00	$2,644,500.00	(M) $ 258,000.00		$7,183,800.00
Interest—war bonds	20,400.00	5,000.00			25,400.00
Interest—inter-company bonds	7,200.00	900.00	(N) 8,100.00		
Interest—advances to B	11,700.00		(O) 11,700.00		
Dividend received	16,200.00		(K) 16,200.00		
	$4,852,800.00	$2,650,400.00			$7,209,200.00
Cost of sales	$3,280,500.00	$1,676,100.00	(E) 12,900.00	(D) $ 16,400.00 (M) 258,000.00	$4,695,100.00
Selling and administrative expense	333,000.00	261,000.00			594,000.00
Depreciation expense	184,000.00	42,600.00		(F) 600.00	226,000.00
Interest expense	24,000.00	19,700.00		(O) 11,700.00 (N) 8,100.00	23,900.00
Band discount amortized		300.00		(C) 270.00	30.00
Bond premium amortized—B-Bonds.	2,000.00			(C) 2,000.00	
Provision for income taxes	600,000.00	420,000.00			1,020,000.00
	$4,423,500.00	$2,419,700.00			
Net income, per books	$ 429,300.00	$ 230,700.00			
Add: adjusting entry (D)		16,400.00			
		$ 247,100.00			
Less: adjusting entry (E)		12,900.00			
Adjusted net income of Co. B		$ 234,200.00			
Less: Minority interest (19%)		$ 44,498.00			44,498.00
					$6,603,528.00
Consolidated net income					$ 605,672.00

Key to Adjustments

A. To eliminate net book value of B Company bonds.

Bond liability	$200,000.00
Less discount unamortized	2,700.00
	$197,300.00
90% of $197,300.00	$177,570.00

B. To write-off the excess of carrying value of investment in B Company bonds to January 1, surplus of Company A

C. To adjust opening surplus of A Company and net income of A Company for amortization of premium ($2,000.00) and amortization of discount (90% of $300 or $270) with respect to the investment in B Company bonds.

D. To adjust the opening surplus of B Company and the net income of B Company for the inter-company profit in the opening inventory.

E. To adjust the net income of B Company and to set up a reserve for intercompany profit in the ending inventory.

Note: The interest on advances cannot be reconciled with the advances account except on the assumption that interest for the last six months has been added to that account. The interest for the last six months is computed as follows:

Interest recorded	$11,700.00
Less interest for 6 months on $50,000 advanced on July 1	1,500.00
Interest on remainder of amount	$10,200.00

$10,200 ÷ .06 = $170,000 = advances other than that made on July 1.

3% of $170,000	$ 5,100.00
3% of 50,000	1,500.00
Advance balance not explained	$ 6,600.00

F. To adjust buildings, reserve for description, January 1, 1945, surplus of A Company and consolidated net income for 1945 resulting from intercompany sale of fixed assets.

	In hands of Company A	*In hands of Company B*	*Differences*
Cost of asset	$100,000.00	$120,000.00	$ 20,000.00
Depreciation provisions			
1940	$ 3,000.00	$ 3,600.00	
1941	3,000.00	3,000.00	
1942	3,000.00	3,600.00	
1943	3,000.00	3,600.00	
1944	3,000.00	3,600.00	
	$ 15,000.00	(a) $ 18,000.00	
Net book value, December 31, 1944	$ 85,000.00	$102,000.00	$ 17,000.00
Depreciation provision, 1945	3,000.00	(a) 3,600.00	600.00
Net book value, December 31, 1945	$ 82,000.00	$ 98,400.00	$ 16,400.00

(a) Reserve for depreciation is overstated by $3,600.00

G. To eliminate A Company bonds owned by B Company

H. To transfer to consolidated earned surplus as of January 1, 1945, 81% of the decrease in B Company surplus from date of acquisition to January 1, 1945:

Surplus at date of acquisition		$150,000.00
Surplus, January 1, 1945:		
Balance, per trial balance	$ 90,200.00	
Less adjustment D	16,400.00	73,800.00
Decrease		$ 76,200.00

81% of $76,200 = $61,722

I. To eliminate 81% of the book value at date of acquisition.
J. To transfer 81% of the net income of B Company to consolidated net income:

Net income, per books	$230,700.00
Less adjustment E	12,900.00
	$217,800.00
Add adjustment D	16,400.00
Adjusted net income	$234,200.00

81% of $234,200.00 = $189,702.00

K. To reverse entry for dividends of B Company paid to A Company
L. To eliminate inter-company advances.
M. To eliminate inter-company sales.
N. To eliminate inter-company interest on bonds.
O. To eliminate inter-company interest on advances.

Solution to Problem 2

Farm Equipment Co.
Working Papers—Transactions
June 1, 1946 to August 31, 1946

	Trial Balance May 31, 1946		Transactions		Profit & Loss		Balance Sheet	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash	$ 36,750.00		(2) $142,200.00	(3) $ 27,750.00			$151,200.00	
				(5) 14,550.00				
Accounts receivable	33,500.00		(1) 9,500.00	(2) 23,500.00				
				(2) 1,250.00				
				(2) 3,700.00				
Inventory of merchandise	120,250.00			(6) 120,250.00				
				(4) 9,950.00				
				(2) 2,300.00				
Furniture, fixtures, trucks less reserve	20,500.00			(2) 8,250.00				
Land and buildings, less reserve	30,000.00			(2) 30,000.00				
Accounts payable, including taxes		$ 15,600.00	(3) 15,600.00					
Interest accrued on mortgage		250,00	(3) 250.00					
Accrued payroll		450.00	(3) 450.00					
6% Mortgage		10,000.00	(2) 10,000.00					
Capital stock		210,000.00						$210,000.00
Surplus		4,700.00						4,700.00
	$241,000.00	$241,000.00						
Loss on sale of land and buildings			(2) $ 5,000.00		$ 5,000.00			
				(1) $ 9,500.00				
				(2) 5,850.00				
Sales				(2) 47,350.00		$ 97,700.00		
				(2) 31,500.00				
				(2) 3,500.00				
Auctioneer's commission and expense			(3) 2,850.00		2,850.00			
Interest on mortgage			(3) 50.00		50.00			
Officers' and office salaries			(3) 5,100.00		5,100.00			
Salary, manager-bookkeeper			(3) 400.00		2,400.00			
			(3) 2,000.00					
Collection agency fees			(3) 375.00		375.00			
Legal fees and expenses			(3) 675.00		675.00			
Loss on sale of furniture, trucks, etc.			(4) 9,950.00		9,950.00			
Loss on uncollected accounts receivable			(5) 14,550.00		14,550.00			
Cost of merchandise sold			(6) 120,250.00		120,250.00			
					$161,200.00	$ 97,700.00		
Loss on realization and liquidation						63,500.00	$ 63,500.00	
					$161,200.00	$161,200.00	$214,700.00	$214,700.00

Key to Transactions

Note: No adjusting entries are necessary
(1) To record sale on credit
(2) To record cash receipts
(3) To record cash disbursements
(4) To record loss on sale of furniture, trucks, etc.
(5) To record loss on uncollectible accounts
(6) To record cost of merchandise sold

Farm Equipment Co.
Statement of Loss on Realization and Liquidation
June 1, 1946 to August 31, 1946

Sales of merchandise		$ 97,700.00
Cost of merchandise sold		120,250.00
Loss on realization of inventory		$ 22,550.00
Loss on sale of furniture, fixtures, trucks, etc.		9,950.00
Loss on sale of land and buildings		5,000.00
Loss on uncollectible accounts receivable		14,550.00
Loss on realization of assets		$ 52,050.00
Expenses:		
Auctioneer's commission and expense	$2,850.00	
Interest on mortgage	50.00	
Officers' and office salaries	5,100.00	
Salary, manager-bookkeeper	2,400.00	
Collection agency fees	375.00	
Legal fees and expenses	675.00	11,450.00
Loss on realization and liquidation		$ 63,500.00

Farm Equipment Co.
Statement of Amount Available for Distribution
August 31, 1946

Cash balance, August 31, 1946	$151,200.00
Number of shares	4,200
Available, per share	$ 36.00

Shareholders	*No. of Shares*	*Amount*
A	1,600	$ 57,600.00
B	1,200	43,200.00
C	900	32,400.00
D	360	12,960.00
E	140	5,040.00
	4,200	$151,200.00

ASSOCIATION NOTES

FRANK P. SMITH

FLORIDA

University of Florida:

DONALD BURNS has been appointed assistant professor, A. ROSS EVANS, associate professor, RUSSELL S. GRADY, associate professor, THOMAS N. HUMBLE, assistant professor, RALPH M. KELMON, assistant professor, W. F. MOSHIER, assistant professor, and LOUIS NOLA, instructor of accounting.

JAMES S. LANHAM, formerly of the University of Southern California, has been appointed Head of the Accounting Department.

E. G. PETERSON, formerly of Virginia Junior College, has been appointed assistant professor of accounting.

EARL POWERS has returned from military service and resumed his teaching duties.

HAWAII

University of Hawaii:

LEE GLOVER recently presented a paper on the subject of "Are Any Costs Fixed When Capacity is Fully Utilized," at a meeting of the Hawaii Chapter of the National Association of Cost Accountants.

ILLINOIS

University of Illinois:

The following have been added to the instructional staff in accounting:

A. H. Asay	L. K. Hays
Roger G. Ashamy	R. J. Helwig
M. A. Binkley	Albert E. Hurt
H. G. Borden	R. M. James
G. D. Brighton	Walter G. Kell
R. L. Brummet	Alice Kirkpatrick
D. F. Colbert	Dorothy Litherland
William T. Davis	G. K. Nelson
J. O. Eaton	R. L. Stallings
Paul L. Freter	Margaret Stewart

The following members of the faculty have returned from military service:

Kennth Berg	L. R. Huff
C. J. Gaa	Glen G. Yankee

R. L. DICKEY recently presented a paper on the subject of "The Accountancy Profession in the United States and in Australia," at a meeting of the Accountancy Club.

LLOYD MOREY has been named a member of the Committee on Governmental Accounting of the American Institute of Accountants, the Committee on Governmental Accounting of the Illinois Society of Certified Public Accountants, and advisor to the Finance Committee of the President's Commission on Higher Education.

H. T. SCOVILL recently presented a paper on the subject of "Accounting for Income Taxes," at a meeting of the Wisconsin Society of Certified Public Accountants.

C. F. SCHLATTER has completed a revision of his text on advanced cost accounting.

INDIANA

University of Indiana:

GEOFFREY CARMICHAEL has been elected Secretary of the Indiana Association of Certified Public Accountants.

D. LYLE DIETERLE has been appointed Director of Small Business Programs, a program in which the School of Business and the U. S. Department of Commerce are cooperating.

CHALMERS L. GOYERT and JOSEPH D. MULLAN have been added to the staff as instructors in accounting.

ROBERT E. WALDEN is serving as Chairman of the Committee on Graduate Study which recently developed two new programs leading to the degrees of Master of Business Administration and Doctor of Commercial Science.

MARILYNN WHITMYER has been added to the staff as instructor in accounting.

EDWARD B. WILCOX, President of the American Institute of Accountants, was the principal speaker at the annual banquet of The Accounting Club.

LOUISIANA

Louisiana State University:

GEORGE FAIR has been appointed instructor of accounting.

JUSTINE MENDELSOHN retired at the close of the last academic year.

J. M. OWEN has been appointed instructor of accounting.

A. J. PENZ has been promoted to the rank of assistant professor of accounting. He recently presented a paper on the subject of "Accounting and Industrial Morale" before the Accounting Session of the Southwestern Social Science Association.

E. A. SALIERS served as Chairman of the Accounting Session of the recent meeting of the Southwestern Social Science Association. He also

published a paper on the subject of "Differential Costs" in the December issue of the *New York Certified Public Accountant.*

MARYLAND

University of Maryland:

C. W. CISSEL and S. M. WEDEBERG were co-authors of the recent Report No. 1, Union Calendar No. 1, 1st Session, 80th Congress, House of Representatives.

NEBRASKA

University of Nebraska:

JUDSON O. BURNETT, formerly of Northern Montana College, has been appointed assistant professor of accounting. During the summer of 1946 he served as a member of the faculty of the University of Minnesota.

NEW YORK

Hunter College of the City of New York:

MARY E. MURPHY presented a paper on the subject of "Trends and Conflicts in the British Economy," at the Cleveland meeting of the American Economic Association. A study recently completed of the life of Sir Arthur Lowes Dickinson will be published in sections in American and English accounting journals.

NORTH CAROLINA

Duke University:

JULIAN R. BLACK was appointed instructor in accounting upon his return from military service.

ROBERT H. VAN VOORHIS, former instructor in accounting, is now Chief Cost Accountant for the Woodlands Department of West Virginia Pulp and Paper Company.

R. B. WOLFARD has been appointed instructor of accounting.

OHIO

Bowling Green State University:

L. J. BENNINGER has been appointed head of accounting instruction. He served as a visiting member of the faculty of the University of Missouri during the summer of 1946.

HOWARD H. KANE and MAURICE L. MILTENBERGER have been appointed assistant professors and WILLIAM SCHMELTZ has been named instructor of accounting.

Ohio State University:

ANGELA AMICI, FELIX R. KONKLE and JOHN T. WEED have been appointed instructors in accounting.

R. CARSON COX, W. J. FLEIG and JAMES R. McCOY have returned from military service to resume their teaching duties. James R. McCoy has also been awarded the CPA certificate by the State of Ohio.

W. E. DICKERSON has been promoted from associate professor to professor of accounting. He has also been elected to the Grand Council of Beta Alpha Psi fraternity.

JACOB B. TAYLOR has been named Business Manager of the University and was succeeded by HERMANN C. MILLER as Chairman of the Department of Accounting.

RUSSELL S. WILLCOX has been elected a national director of the National Association of Cost Accountants.

OREGON

University of Oregon:

JESSE H. BAND retired at the close of 1946.

PENNSYLVANIA

Wharton School of Finance and Commerce:

The following instructors in accounting have been added to the staff:

Jerome Bennett	James S. Hutchins
Robert G. Cox	Richard G. Moore, Jr.
William Creamer	Gordon V. Moyer
Kenneth T. Delvalle	Stanley E. Ross
George W. Frank	Karl G. Seelaus
Robert F. Hotchkin	Willard E. Stone
William S. Woods, Jr.	

T. A. BUDD has been named Chairman of the Accounting Department.

ADOLPH MATZ recently presented a paper on the subject of "Electronics in Accounting" at a meeting of the Philadelphia Chapter of the Institute of Internal Auditors.

TEXAS

North Texas State College:

B. L. NEWTON, formerly of Oklahoma A & M, has joined the teaching staff.

ELMER SCHICK was appointed assistant professor of accounting upon his return from military service.

An accounting club has been organized to further interest in professional accounting through the study of CPA problems.

Texas A & M College:

ROGER W. BRIGGS, formerly of DePaul University, has been appointed associate professor, S. C. HOYLE, JR., assistant professor, and ROLAND W. PARKER, instructor of accounting.

BOOK REVIEWS

Herbert E. Miller

Advanced Accounting. (4th Edition) Roy B. Kester. (New York: The Ronald Press Company, 1946. Pp. x, 796. $5.00.)

The first edition of *Accounting Principles* by Dr. Roy B. Kester appeared in 1918. The completeness of coverage and the skill in presentation quickly won for the author a position of eminence in accounting. This position has been maintained throughout the succeeding years.

The fourth edition of *Advanced Accounting* has been in preparation for a number of years. Though work on it was completed during the war the book was not brought out for marketing reasons. After further revision last year the book appeared in the fall. It is a complete and thorough revision. During the interval since the third edition (1933), accounting principles have undergone significant changes. Greater attention is now devoted to accounting principles as such. Some of the material in the old text has been moved to Volume I. Some has been expanded, some eliminated, much of the latter will come out in Volume III, which is in the process of rewriting. The material in this volume has been compressed into thirty chapters, as compared with thirty-six in the preceding volume.

The first three chapters are devoted to the balance sheet in general: first, the item content; second, measurement; and third, presentation of data on the balance sheet. This three-fold manner of presentation has been adhered to chapter by chapter wherever it is practical to do so. This makes for orderliness in presentation and ease of comprehension although in some cases it breaks continuity. The term measurement has generally replaced the term valuation. In setting aside a portion of each chapter for statement presentation the author brings to the student many practical illustrations from published financial statements.

The title "profit and loss statement" has given way to "statement of income operations."

Chapters five to twenty-four inclusive deal comprehensively with the accounting problems of various items on the financial statements. Chapter five combines a treatment of cash and marketable securities. The receivables have been given a separate chapter. The chapter on inventories is splendid. A discussion of last-in, first-out and the base stock methods have been added, though, in this reviewer's opinion, the treatment is too brief.

The seven chapters on depreciation in the former edition have been condensed to three. This is an improvement. For example, various methods of calculating depreciation have been integrated with an appraisement of these methods.

The treatment of accounting for treasury stock in Chapter 19 has been materially improved and meets the objection that reacquired shares per se do not reduce legal capital.

A new chapter on capital surplus has been added. The conception of capital surplus as distinguished from earned surplus has been clarified. The discussion of revaluation of plant property has been well developed. This is a subject of increasing importance which is too often neglected or ignored. The effect of the changes in the purchasing power of money on plant valuation and profits must be given more attention by serious students of accounting in these days of changing price levels.

The treatment of consolidated financial statements has been expanded from three chapters to five. In the earlier edition, this treatment was too brief. New material has been added and it has been otherwise developed. The last chapter, dealing with interpretation of financial statements, deals largely with ratio methods and statements of funds.

The volume is a large one and while there are a number of things one would like to see developed further the size of the work cannot easily be expanded. The chapters on branch house accounting in the earlier editions have been omitted. Part of this material is now included in Volume I. Matters pertaining to the accounting for foreign branches are distributed appropriately throughout the text. The three chapters on liquidation and estate accounting in the old text have been eliminated. They will probably be included in the revision of Volume III.

The criticisms which this reviewer can offer are few and minor. To some it will appear that more mathematical formulae (in connection with such things as investments, sinking funds and depreciation) are offered than are needed. On pages 118 and 119 it is stated that the valuation of market securities should include the cost of brokerage fees. This is open to question inasmuch as additional brokerage fees must be paid when the securities are sold. On page 451 the reservation of paid-in surplus in preference to earned surplus, in the accounting for treasury stock, appears to defeat the purpose. In this reviewer's opinion the treatment of the accounting for instalment sales could be improved.

The author has frequently referred to the work of the committee on terminology of the American Institute of Accountants. Recognition is given to recent corporate legislation and its effect on accounting practices.

The problem material is adequate and offers ample opportunity for selection to illustrate the principles discussed in each chapter. The long practice set of the earlier editions has been eliminated. There are two practice sets offered in connection with the first volume.

There is no question in this reviewer's mind that this is the most outstanding textbook in accounting. The author is not a propagandist. He has produced a comprehensive text and reference work. As such it may not appeal to teachers who wish to offer a survey course. It may appear too difficult to teachers who are not specialists in accounting. It requires serious application on the part of the student. It will appeal to those students of advanced accounting whose chief interest is in sound

theory and considered judgments rather than in bookkeeping techniques. It should be a part of the reference library of every professional accountant.

HOWARD E. COOPER

The Johns Hopkins University

Advanced Accounting. E. I. Fjeld and Lawrence W. Sherritt. (New York: The Ronald Press Company, 1946. Pp. vii, 490. $4.50.)

For the field of accounting the decade of the 'thirties was a period of acute self-examination with the aim of discovering areas of general agreement that could be codified into a body of principles or standards. During the past six years several serious and more or less successful attempts have been made to distill the results of this research and to recast the presentation of elementary accounting to harmonize with accepted principles. The field covered by books in advanced accounting has long been a weird combination of specialized methods of procedures and practices that shouts for reorganization. *Advanced Accounting* is a straightforward, undistinguished addition to the literature in the tradition of Seymour Walton, to whom acknowledgment is given, and of H. A. Finney.

Perhaps the outstanding characteristic of *Advanced Accounting* is the profusion of illustrative problems. There are perhaps three such lengthy problems in the average chapter. The writing style is somewhat monotonous as a steady diet, but should not prove objectionable when studied in regular assignments. The problems for laboratory and homework seem satisfactory, but the questions at the end of each chapter are of the all too common type: "Distinguish between instalment sales and credit sales."

The treatment of instalment sales is orthodox and satisfactory. The treatment of unearned gross profit as a surplus reserve is interesting and the discussion of leases with options to buy is especially welcome. Consignments, agencies, and branches are ably treated.

The treatment of foreign exchange is thoroughgoing and reasonably satisfactory. The rates in effect in 1940 are in most cases fantastically unreal, and the statement that "Clean bills are the opposite of documentary bills" is not likely to clarify the student's thinking. Like other available texts the similarity between foreign exchange accounting and the price-level accounting techniques of Sweeney and others is not mentioned.

The excellent treatment of consolidated statements begins with the usual emphasis on reporting for the "economic" unit. On page 144 it is asserted that economic control is possible with less than 50 per cent ownership, but on page 124 the authors state that less than 50 per cent ownership does not qualify for consolidation. What then is an economic unit? At a number of points the wording is loose. The statement that by simply replacing the investment account with the assets and liabilities "a complete financial picture is presented" (pp. 134–135) certainly deserves modification. One may also doubt that "The basic objective of consolidation remains the same . . . i.e., that of fusion of the two or more balance sheets into one statement." The use of consolidated premium and discount instead of positive and negative goodwill is to be commended. Depreciation on inter-company manufacture and utilization of machinery is marred by the implied ranking of costs that leads to the statement that "If the subsidiary company breaks even during the year, or makes a profit, the full amount of the depreciation becomes realized." The coverage on consolidated statements is good and the twisty problems of mutual ownership are clearly presented and solved. Some confusion may arise from the algebraic error in the illustrative problem on page 247.

The statement of affairs and the deficiency account are treated in a satisfactory manner. Receivership accounting is given orthodox attention but the modifications necessary if old liabilities are recorded on the receiver's records are not shown. Realization and liquidation gyrations are treated in a balanced manner so that the average student should be able to understand the shortcomings and limited usefulness of the typical statement. The excellent illustration on pages 368–377 is marred slightly by the authors' failure to key the interim transactions. Decedents' estates and trust accounting are not treated. There is, however, a strange chapter written by Mr. Kuntzleman covering the financial aspects of corporate reorganizations. The typical chapter on mergers and reorganizations is doubtless in need of serious modification, but a detailed discussion of reorganization under Chapters X and XI of the Bankruptcy Act can scarcely be counted an improvement. No problems are available for this chapter, though a brief illustrative problem is included.

The authors of *Advanced Accounting* have not followed the lead of the Institute's Committee on Accounting Procedure regarding the tentative nature of accounting principles. "True income," "true value," "complete picture," "in the final analysis" are phrases that express a degree of certainty not shared by the reviewer. Nevertheless, the writers have compiled a text, which in conjunction with their own *Intermediate Accounting* (Ronald, 1942) and with reasonable classroom activity on the part of the instructor, should give students a thorough foundation in the usual topics of accounting. Certain sections may be extremely useful in reviewing for professional examinations, but it is probably safe to say that many teachers who desire this approach will continue to use the standard works of Finney and Walton.

C. T. DEVINE

University of Pennsylvania

Business Budgeting and Control. J. Brooks Heckert. (New York: The Ronald Press Company, 1946. Pp. ix, 546, $6.00).

Some years ago a student in a budgeting class remarked, "In this course I have learned what a completed budget looks like, but I'd like to learn how to obtain the type of data that the author gives us in his problems." If that student had studied Mr. Heckert's text, he would not have made that remark.

Basic budgetary data are the products of analyses. The subject matter of such analyses are too voluminous for presentation in text problems or questions. Never-

theless, students of this text quickly learn to think analytically. The first questions and problems are short and easy, but are inherently different from the questions and problems usually found in accounting texts. While they require some paper work, the emphasis is on observation, comparison, and resourcefulness. As study progresses, the problems become more difficult. Thus students are introduced to that delightful activity, analytical thinking. For the first time in their accounting lives they embark on voyages of discovery, searching for significant data and controlling factors in places where they are not obvious, but where they can be found by diligent and keen observation.

Although this book presents the basic processes of budget building so clearly that students can understand, it contains meat that experienced budget-makers will enjoy chewing. Mr. Heckert's collection of questions and problems truly is amazing. They contain ample evidence of many years of research and careful selection for quality. Here are a few samples of the questions:

"Budgeting is a waste of time. I want my executives to be busy making and selling goods, not writing up plans for the future."

"Can foremen and salesmen actually be made to take an interest in budgets, the chief purpose of which is to increase the profits of the company?"

"We were never able to hit our budget, so we gave it up as useless."

"Should the budget be based on standard performance or on actual expectations?"

"One chief executive states that he is too busy with administrative responsibilities to give attention to budgeting. He believes the budget should be left entirely to the controller."

Seventy-three pages are devoted to sixty problems. Each is rated as to the time that solution should require. They are thought-provoking, tough enough to interest experienced accountants and easy enough so that advanced accounting students with more-than-average ability can solve them.

The text material seems to cover every phase of budget-making, budget-reporting, and budgetary control, yet it is not exhaustive. The author does not bore his readers by trying to give them rules to cover every petty operation. His emphasis is on understanding.

The author has a very readable literary style characterized by short sentences, common words, and step-by-step presentation of data in logical sequence. His book is more than a book on budgeting. It is a demonstration that involved accounting subject matter can be presented in a manner that is interesting, practical, forceful and clear.

WILLIAM H. WHITNEY

University of Alabama

Audit Practice Case. (Revised Edition). Arthur W. Holmes and Francis E. Moore. (Chicago: Richard D. Irwin Inc., 1946. $5.00.)

The average college student in accounting is decidedly lacking in contact with actual business forms. While the student may know what to do with the information on transactions if presented as a problem, he is unable to recognize the facts in their "raw" form. The *Audit Practice Case* should satisfy this lack, at least in part, because the 216 pages of papers and miscellaneous data include the following: bank confirmations, bank statements, cancelled checks, and deposit tickets; sales orders, invoices, customers' purchase orders, notes receivable and payable, and expense reports; inventory summaries and count cards; company vouchers, and vendors' invoices including freight bills; company purchase orders and receiving reports.

According to the introduction, this *Audit Practice Case* is for the use of inexperienced accounting students or for those desiring a refresher course in auditing with neither textbook nor instructor guidance. It seems that the authors have tried to span two distinct levels of work. At various places in the set the student is to assume that his assistant has satisfactorily completed a particular phase of the work. While this is a time-saver for the practicing man, it denies the student practice in the very tests he will be called upon to make early in his public accounting experience. If the authors felt that these tests would take too much of the students' time, the work could have been reduced elsewhere, i.e. by including subtotals in the ledgers, without reducing the effectiveness of the work. At times the instructions are too detailed for any student qualified to work an audit practice case. An example of this is under the audit program for petty cash which states, "Prepare the journal entries required to adjust the amount of this fund for expenses, receipts, etc., so that the adjusted balance will represent the actual cash on hand as at December 31, 1946."

In addition to the original documents mentioned above, the set includes the finished report and related working papers for the prior year's audit, books of original entry, the general ledger and accounts receivable ledger. Except for the two ledgers, these records are bound separately which facilitates checking and simulates actual conditions.

In this article, "College Education As a Requirement For Certified Public Accountants" (ACCOUNTING REVIEW, October, 1946), Norman E. Webster stated, "I never have believed that schools were or could be prepared to teach successfully the subject of Practical Accounting or the practical part of Auditing." Whether or not one agrees with Mr. Webster is a matter of personal opinion, but the *Audit Practice Case* is at least a step in the right direction toward accomplishing this for the students of auditing.

J. W. RUSWINCKEL

Michigan State College

Mathematics of Investment. (Third Edition). William L. Hart. (Boston: D. C. Heath and Co., 1946. Pp. vi, 304. $3.60.)

This is the third edition of a book that has long been an outstanding text in the subject, and inspection of this revised edition indicates that it will continue to deserve its rank. It is on a subject that should be valuable

to the student of commerce or business administration from a professional point of view. It should be of interest to many others, for almost all men today come in contact with the subject, at least indirectly, by way of their life insurance policies, bonds, stocks, direct reduction plan mortgages, instalment buying and other financial transactions.

As the title indicates, it is a mathematical treatment of investment. But note should be taken of two facts in this regard. First, that it is simple mathematics. No more mathematical knowledge is needed in any part of the book than is ordinarily acquired by a student in a course in college algebra. A student with a background only of high school advanced algebra could read virtually all of it. The second fact is that the treatment, though mathematical, is not abstract. It is very concrete. One actually learns how to determine the yield on a financial transaction or to compute the payments for a direct reduction mortage plan. Yet, since the treatment is mathematical, the processes are general enough to give full coverage to the underlying principles.

Like the previous edition it is divided into three parts. The first part, entitled Annuities Certain, is devoted to this subject after preliminary chapters on simple interest and compound interest. The second part is concerned with Life Insurance, and the third part, Auxiliary Topics, consists of elementary discussions of logarithms and progressions, needed occasionally in the first two parts of the book.

The first chapter describes the elementary theory of simple interest and simple discount. It is amply illustrated by examples of commercial practise, and all of the usual methods of computing simple interest are shown. Both in the text and in the problems there are displayed sample drafts, acceptances, and promissory notes. This is a matter of some importance since many college students, it appears, have never seen such papers.

The second chapter takes up compound interest. The development is in a natural and logical order. It is copiously illustrated by examples and problems. The last two sections of this chapter introduce the equation of value, which is the fundamental equation and idea in the mathematical treatment of this entire subject. Although simple discount is treated at length in the first chapter, chapter two devotes only a brief paragraph, in the form of a note, to the subject of compound discount. This is not important perhaps, since compound discount unlike simple discount is rarely if ever used in commercial practice. However it simplifies the solution of a number of problems, and it is of importance in certain actuarial problems. Moreover compound discount rounds out in a very satisfactory manner the whole theory of compound interest.

With the background provided by the first two chapters the student can proceed to the subject of Annuities Certain expounded in the next two chapters. It is at this place that the author has made the greatest change from the second edition in the matter of organization. Only annuities of the simplest type are treated here. More general annuities are postponed to chapter seven. Consequently the student in his first introduction to the subject of annuities is not confused by a large number of formulas for annuities of different kinds with their complexity of exponents, subscripts, and superscripts. Skillful use is made by the author at this point, as well as in other parts of the book, of straight line diagrams for outlining and illustrating his problems. The amortization and sinking fund methods of extinguishing debts are treated carefully and clearly.

The next subject taken up is that of bonds. Methods of determining price and yield are given, and amortization is discussed and illustrated. It is quite a clear treatment of a subject which is often confusing to business men and others whose work brings them in contact with bond yields and problems of amortization. The following chapter treats a variety of subjects including depreciation and perpetuities. The author makes no attempt to recommend any particular method of depreciation; his concern is merely to show the mathematical methods of handling the various types. He makes no mention of the method usually described as the 'unit cost method.'

Chapter seven introduces the general annuity formulas. By this time the student is thoroughly familiar with simple annuities, not only because of the two chapters devoted to them earlier, but because they have been constantly used in the chapters on bonds and depreciation. He is now ready to consider more special annuities whose frequency of payment does not coincide with the frequency of the conversion of interest. In this chapter are also treated the problems of finding the term of an annuity and of determining the rate of interest involved for a given annuity. This chapter might be omitted by a student seeking only the barest rudiments of the subject. Part One of the book is completed by two short chapters on reinvestment rates and building and loan associations. The latter is quite modern as far as current building and loan association practices are concerned.

In Part Two we find treated in succession: life annuities, life insurance, and policy reserves. The subject of life annuities is well treated, and an adequate treatment of the computation of premiums for the more important forms of life insurance contracts is given. The discussion of policy reserves is too brief. Any student who has read the preceding two hundred pages of this book deserves and is capable of understanding a fuller treatment of the significance of life insurance reserves and of the methods for their calculation. But, nevertheless, in Part Two we have a good treatment of a subject which every college student should know. Most purchasers of life insurance (and many sellers of life insurance) could make more intelligent decisions if they had this rudimentary but fundamental knowledge of the subject.

This book could be used for a number of purposes in various situations. It would be suitable for a course designed to cover the subject thoroughly. By omitting the parts marked with a star by the author, and perhaps other parts as well, it could be used as a text for a very elementary course. It should prove to be an excellent reference book in accounting courses. Only college algebra or a good course in high school advanced algebra is necessary as a mathematical background. This background can be supplemented by Part Three which

gives adequate treatments of logarithms, for computation purposes, and the theory of arithmetic and geometric progressions used in establishing annuity formulas. A serious student could probably read this book without a teacher, for it is very clearly written.

The appendix consists of several short articles on such subjects as continuously convertible interest, length of time for money to double itself at interest, and interpolation methods. These would be of interest to those who wished to delve more deeply into certain topics.

Mention should certainly be made of the numerous and very fine problems appearing throughout and at the end of each chapter. Answers are given for the odd-numbered problems. Good tables, necessary for the computations, are bound into the book at the back.

A book such as this one is of importance to the commence student because of the fundamental theory that it teaches. A handbook may be just as valuable for looking up a formula or a method, but study and mastery of a book like this one, will enable one to approach and solve problems with independence and confidence due to a complete understanding of fundamental principles.

BYRON COSBY, JR.
State University of Iowa

Investment Analysis. John H. Prime. (New York: Prentice-Hall, Inc., 1946. Pp. xiii, 442. $4.65.)

In his preface the author states that this text has been designed for the student of investments and for the investor himself. The book is divided into two parts, a discussion of the nature of investments and an analysis of corporate financial statements. The main text opens with a classification of securities and follows this with a discussion of security markets, investment mathematics, and the flotation of new securities. Next, the nature of the obligations of the various types of issuers of securities (governments and municipalities, railroad, utility and industrial corporations) is explained, and following this is a discussion of the nature and analysis of financial statements in general and of bank and fire insurance company statements in particular. The appendix lists several sources of analytical data concerning investments, explains the manner in which security quotations are reported in the press, and sets out examples of a broker's cash and margin account agreements, a put and a call contract, and issuers' invitations for bids for new securities. At the end of each of the twenty-one chapters the author has set out a series of review questions and several problems for assignment.

The text is couched in non-technical language. Its organization is good but its scope is limited to elementary principles of investment analysis. As a consequence it has greater appeal for use in freshman and sophomore college classes than as a text for advanced students in commerce or business administration. The trained investment analyst will find many of the author's comments invite disagreement, but doubtless it was not the author's intention to produce a treatise which would survive technical criticism but rather to offer a general survey of the field of investment analysis as a background for more advanced study. The better chapters of the text are those which deal with factual information, such as those on the mathematics of investments and on the functioning and regulation of the securities markets. The chapters dealing with the analysis of financial statements define the usual ratios employed, but the author has not fully explained the significance of the ratios. His treatment is generally limited to a single ratio at a time and as a result the student is likely to think of each ratio as a separate analytical factor and not to attempt proper correlation of the information developed by considering all of the ratios together. One railroad, one utility, and one industrial corporation supply the illustrative data for nearly all of the computations. The years from which the data are drawn are war years, and as a consequence the resulting ratios are not always typical even for the few companies selected.

The student who completes a course based on this text will still have much to learn about investment analysis. He will find that real investment analysis goes far beyond mere ratio analysis as set out in this book. It involves a knowledge of the investor's purpose, an understanding of market-timing, an ability to appraise managerial personalities, some familiarity with income taxation, some comprehension of property appraisal, and, most of all, the qualities of curiosity and imagination which lead the experienced analyst to know "by the seat of his pants" that he can accept *this* factor as correct while he must probe further into *that* factor despite its apparent bona fide-ness.

JOHN F. PARTRIDGE
Welsh, Davis and Company
Chicago, Illinois

Elements of Economics. Edmund Whittaker. (New York: Longmans, Green and Co., 1946. Pp. xvii, 393. $3.50.)

Within less than four hundred pages Professor Whittaker has succeeded in presenting the body of economic theory as it is usually taught to beginning students in economics. As a result, the *Elements of Economics* qualifies as one of the few thoroughly acceptable one-semester texts in the principles of economics. If supplemented by other readings, it might also be used successfully in the somewhat more standard two-semester courses in elementary economics.

Professor Whittaker's general outline conforms to the accepted pattern for elementary economics texts. After the usual preliminary statements about the purpose, method, and vocabulary of economics, and the nature of economic systems, the author discusses the means whereby a profit-incentive economy allocates resources. In this section he considers at some length the price and output adjustments under competitive and monopolistic conditions. He then turns to a consideration of the distribution of income among the factors of production.

Having completed the description of how an economy might operate under static conditions, Professor Whittaker turns to the subject-matter usually discussed under the headings of (1) money and banking, (2) business cycles, (3) international trade, and (4) public finance. Finally, in what is essentially an epilogue, he discusses

the national income and some contemporary economic problems.

Considered from the point of view of the orthodox economics course, Professor Whittaker's book is an excellent one. It is clearly written. The author not only has made generous use of examples, but also has suggested exercises and problems which should go a long way toward making concrete the abstractions characteristic of the first course in economics.

The basic question, so far as this review is concerned, is whether the orthodox economics course, concentrating as it does on the apparatus of cost and demand curves, is an adequate introduction to the economics of the real world. But, this is much too large a question to be discussed in this connection.

E. T. WEILER

Ohio Wesleyan University

Business Law—Principles and Cases. (Third Edition). Harold F. Lusk. (Chicago: Richard D. Irwin, Inc., 1946. Pp. xvi, 976. $5.00.)

Professor Lusk states that this revision follows the same plan of presenting the materials as was used in the earlier editions. However, since this reviewer has never used either of the previous editions, no such comparison will be attempted.

One of the most refreshing features of this book is the author's selection and use of cases. Three hundred sixty-seven cases are presented, mostly outstanding recent decisions. Over twenty per cent are cases decided since 1940, over thirty per cent in the 1930's, and about fifteen per cent in the 1920's. The use of more recent cases should appeal to most students, who often justifiably feel that the study of law from cases involves only antiquated horse-and-buggy situations. The cases selected illustrate new problems which have faced the courts in recent years, and should enliven the interest of the student by showing up-to-date situations which might involve anyone today. Cases are well edited, with a minimum of confusing legal terminology included. Technical terms remaining are clarified in a 31-page Glossary, including both pronunciation and meaning.

Each case is prefaced by a statement of: 1) the party or parties plaintiff and the party or parties defendant; 2) for whom judgment was rendered in the trial court; 3) who appealed; and 4) the disposition of the appealed case. This preface should be very helpful to the average business student, who can read an entire case as usually reported, and still be in the dark as to the essential information mentioned above. Even with careful editing, some of the cases appear too long.

In his Introduction, the author presents a clear discussion of the nature and source of the law, crimes and torts, and courts and court procedure. Since so many cases involving businessmen and accountants are tort cases, it might be well to include a little more on this subject in business law tests.

The subject of contracts covers 230 pages and is well written. Personal property and real property are treated together, with the security transactions involving both kinds of property in the same section.

Part IV, on Sales, covers the Uniform Sales Act, special mercantile practices and terms, warranties, and remedies for breach of warranty. The entire Uniform Sales Act is given in the Appendix.

The subject of negotiable instruments takes 118 pages in the text as well as several pages in the Appendix, where the Negotiable Instruments Law is given in full. Illustrative forms of various types of instruments are included in the text to make the explanation easier to follow.

Agency is fully explained in 100 pages. The author divided the study of this branch of law logically into relation of principal and third persons, of agent and third persons, and of principal and agent.

Sixty-two pages are devoted to the law of partnerships and the Appendix gives the Uniform Partnership Act. The second longest section of the book is that on corporations: incorporation, financing, operating, stock transfers, stockholders rights, and mergers and reorganizations.

In addition to the main headings listed, Professor Lusk has one chapter on insurance, one on bankruptcy, and one on labor relations. The latter chapter should be welcomed by law students, since few business law texts have included this topic. Labor legislation and the law covering the rights and liabilities of labor are of particular interest to everyone engaged in business today.

Each chapter is concluded with a group of case problems which are well-adapted to class discussion or for a self-testing device. These were taken from decided cases and reduced to the essential facts. This book would serve very well as a review for those planning on taking their CPA examinations in commercial law or as a reference book for practicing accountants. It is also recommended as an excellent text for any business law course.

M. B. DICKERSON

Michigan State College

ASSOCIATION REPORTS

EXECUTIVE COMMITTEE MEETING

THE FIRST FORMAL meeting of the 1947 Executive Committee and certain Committee Chairmen was called to order by President Hermann Miller at 9:15 A.M. on Sunday, January 19, 1947 at the Palmer House, Chicago, Illinois.

Attendance:

Members Present:

- Hermann C. Miller, Pres., Ohio State University, Columbus, Ohio
- Ernest C. Davies, V. Pres., Northwestern University, Evanston, Ill.
- Raymond E. Glos, V. Pres., Miami University, Oxford, Ohio
- Cletus F. Chizek, Sec'y., University of Chicago, Chicago, Ill.
- Robert L. Dixon, Editor, University of Michigan, Ann Arbor, Mich.
- Thomas Leland, Dir. of Research, Texas A & M College, Col. Station, Tex.
- Carman G. Blough, Past Pres., American Institute of Accountants, New York City
- Harvey G. Meyer, Past Pres., University of Tenn., Knoxville, Tenn.
- Eric L. Kohler, Past Pres., 1 La Salle St., Chicago, Ill.

Chairmen Present:

- Herbert Miller, Com. on the Revision of the Statement of Acctg. Principles, University of Michigan, Ann Arbor, Mich.
- Harold Read, Com. on the Statement of Cost Princ., University of Tenn., Knoxville, Tenn.
- Harry H. Wade, Membership Committee, University of Iowa, Iowa City, Iowa.

Member Absent:

- Victor Z. Brink, V. Pres., 40 Rector St., New York City

Report of Secretary-Treasurer:

The report of the Secretary-Treasurer for the year 1946 was presented by the retiring officer, Ernest Davies. Moved by Dixon, seconded by Blough, that the report be accepted as presented. Carried unanimously.

Moved by Kohler, seconded by Leland, that the Secretary-Treasurer be instructed to communicate with Harry Kerrigan, Northwestern University, expressing the thanks of the Association for his efforts as Auditor of the Association's financial records. Carried unanimously.

Investment of Surplus Cash:

After a brief discussion regarding the possible desirability of investing a portion of cash, it was moved by Blough, seconded by Kohler, that the President and the Secretary-Treasurer be jointly empowered to invest in Government Bonds that part of the cash balance which they, at their discretion, might deem surplus. Carried unanimously.

Time of Annual Meeting:

Chizek distributed a mimeographed tabulation of the questionnaire sent to all members and commented briefly on the results. Open discussion followed. Kohler moved, and Leland seconded, that the 1947 annual meeting be held sometime during the first two weeks of September, the final decision to rest with the President and Secretary-Treasurer, jointly, depending on hotel accommodations and convenience. Motion carried unanimously.

Place of Meeting:

There was considerable open discussion as to the place of the annual meeting.

A motion was made by Leland, and seconded by Blough, that the meeting be held in New York City, with the President and Secretary-Treasurer jointly empowered to move the meeting out of New York if the hotel situation there proved too congested. Motion unanimously carried.

Standards Rating Committee:

The purposes of the Standards Rating

Committee were discussed. President Miller explained that the committee was set up for the purpose of exploring the advisability of establishing standards in certain areas, as for example: (1) teaching, (2) transfer of students, (3) admittance of graduate students, (4) rating of curriculum (5) development of standards to determine which schools are equipped to offer accounting as a major, etc.

Discussion of S.E.C. Form S-1:

The revised form had been sent to members of the Committee by President Miller, who had received them from William Werntz, Chief Accountant of the S.E.C., with the request that we examine the form carefully and submit recommendations.

After some general discussion, Miller asked that those present address personal letters to Werntz if they had any major comments.

Inventory Pricing:

Each member present had been furnished in advance by Blough, representing the American Institute, a copy of the preliminary draft of a possible research bulletin devoted to "inventory pricing."

Blough spoke briefly on the historical background of the draft. He indicated that although the issue was a very practical matter, there are many differences of opinion and that he would appreciate receiving criticisms and comments.

It was agreed that individual members would submit their criticisms in writing to Blough, also passing these on to all other members of the Executive Committee.

Communication from the American Institute:

President Miller presented a communication which requested that the American Accounting Association form a Committee to work with the Board of Examiners of the Institute in reviewing the entire subject of C.P.A. examinations.

Blough recommended that the Association committee make an independent study of the examinations, to be followed by a joint meeting with the Institute committee.

After a discussion of the problem in general and about the size of the proposed committee, Glos proposed, and Kohler seconded, a motion that a Committee comprised of not less than five and not more than nine members be appointed by the President to carry on the study outlined by the Board of Examiners. Motion unanimously carried.

Revision of Statement of Accounting Principles:

President Miller opened the discussion by asking whether or not there should be a revision.

Blough reviewed the background of the two statements of 1936 and 1941.

Meyer moved, supported by Chizek, that the Executive Committee approve and encourage the activities of the Committee on the Revision of the Statement of Accounting Principles, as that Committee was conceived and constituted. Motion carried without dissent.

President Miller raised the question as to how the Committee should proceed. Should there be a new statement? Should there be an extension? Should there be a complete revision?

Herbert Miller initiated discussion, participated in by all present, on various items: reorganizations, quasi-reorganizations, restoration of costs, "distortion" of the income statement, surplus charges versus income charges, "normalizing" income through reserves, terminology—especially "net income," misinterpretation by the press, etc.

Herbert Miller expressed the hope that

the re-publication of the 1941 Statement in the January, 1947, ACCOUNTING REVIEW will be fruitful; also that a committee meeting would be held in May, after farming out the work and receiving suggestions.

President Miller encouraged members present to send comments to Herbert Miller and to other members so that ground-work would be substantially laid for the next meeting.

Statement of Cost Principles:

Dixon presented a brief outline of the background. He further indicated that cost principles are on a different plane—not of such general interest as general principles. Nevertheless they substantially affect published statements.

Leland urged that the study should stress the purposes of cost accounting and the relation of cost to financial accounting. He also questioned the possibility of the overlapping of the work of the two committees working on statements of principles.

Read stressed the importance of the conceptual basis.

Hermann Miller, supported by the members, expressed the belief that it would be very desirable for the Committee on Cost Principles to hold a meeting within three or four weeks. He urged further that members of the Executive Committee pass on suggestions to Read and to the other members of the Committee.

Annual Meeting Program:

President Hermann Miller suggested that the meeting be devoted to three topics: (1) Statement of Accounting Principles, (2) Statement of Cost Principles, and (3) Problems of teaching. The importance of making meeting plans immediately was stressed.

Meyer endorsed the teaching section, indicating that it would serve as a method of appealing to many new teachers. He further suggested that some time be devoted to visual education methods, both at the annual meeting and for a section in THE ACCOUNTING REVIEW.

The group spent considerable time discussing the matter of visual aids: it was the consensus that a session should be devoted to this at the annual meeting. Time was spent discussing the role of English in the training of students.

Miller agreed to proceed to build a program based, in part, on education methods. A report will be ready at the next meeting of the Committee.

Next Meeting of the Executive Committee:

It was agreed to hold the next meeting at the Netherland Plaza Hotel in Cincinnati on Sunday, March 9, 1947. The Secretary-Treasurer was instructed to make the necessary arrangements.

Adjournment:

The meeting was adjourned by order of President Miller at 4:45 P.M.

CLETE CHIZEK
Secretary-Treasurer

MEMBERSHIP DRIVE 1947

One of the important activities on the 1947 program of the Association is an aggressive and comprehensive membership campaign. The large number of teachers who have been added to accounting faculties recently gives us an unequalled opportunity to increase membership substantially this year. Each member is urged to assist the chairman of his region in an effort to make the 1947 campaign a real success.

Membership Committee—1947

(Harry H. Wade, University of Iowa, Chairman)

Name	*Region*
Atkinson, Sterling K. Temple Univ. Philadelphia, Pa.	Certain institutions in Pennsylvania

Barnes, D. L. Univ. of Oklahoma Norman, Okla.	Oklahoma
Beals, Wendell E. 404 Pennsylvania Ct. Lexington, Ky.	Kentucky
Bergstrom, William N. 1217 W. Wisconsin Ave. Milwaukee, Wis.	Wisconsin
Black, M. H. Box 4765, Duke Station Durham, N. C.	North Carolina and South Carolina
Boddy, Francis M. School of Bus. Admin. Univ. of Minnesota Minneapolis, Minn.	Minnesota
Bowers, Russell Carnegie Inst. of Tech. Pittsburgh, Pa.	Certain institutions in Pennsylvania
Borth, Daniel School of Business Univ. of Chicago Chicago, Ill.	City of Chicago
Briggs, W. S. Rhode Island State Coll. Kingston, R. I.	Connecticut and Rhode Island
Brush, Lauren F. College of Bus. Admin. Syracuse Univ. Syracuse, N. Y.	Certain institutions in New York State
Darby, Capt. Paul H. Kemper Military School Boonville, Mo.	Missouri
Durst, Nelson D. College Station, Tex.	Certain institutions in Texas
Fordon, John Commerce Hall Univ. of Washington Seattle, Wash.	Idaho, Oregon, and Washington
Foster, Louis O. Amos Tuck School Dartmouth Coll. Hanover, N. H.	Maine, New Hampshire, and Vermont
Fullerton, G. G. School of Bus. Admin. Univ. of Colorado Boulder, Colo.	Colorado and Wyoming
Futhey, Bruce Univ. of Alabama University, Ala.	Alabama and Mississippi
Guson, S.J. St. Bonaventure Coll. St. Bonaventure, N. Y.	Certain institutions in New York State
Herbert, Leo Brigham Young Univ. Provo, Utah	Arizona, New Mexico, Utah, and Nevada
Jencks, William B. Commerce Building Ohio State Univ. Columbus, Ohio	Ohio
Karrenbrock, W. E. 1943 Pelham Ave. W. Los Angeles 25, Calif.	Certain institutions in California
Lanham, James S. College of Bus. Admin. Univ. of Florida Gainesville, Fla.	Florida and Georgia
Maynard, Gilbert P. 206 A University Hall Iowa City, Iowa	Iowa
Meyer, Harvey Univ. of Tennessee Box 4241 Knoxville, Tenn.	Tennessee
Murphy, Mary 695 Park Ave. New York, N. Y.	City of New York
Nelson, Carl L. College of Bus. Admin. Univ. of Nebraska Lincoln, Neb.	Nebraska
Nelson, Edward G. 1213 Ohio St. Lawrence, Kan.	Kansas
Newcomer, Hale L. 120 Commerce Bldg. Univ. of Illinois Urbana, Ill.	State of Illinois, excluding Chicago
Penz, A. J. College of Commerce Louisiana State Univ. Baton Rouge, La.	Arkansas and Louisiana
Olson, Harry E. Univ. of South Dakota Vermillion, S. D.	South Dakota, North Dakota, and Montana

Owens, Richard N. Geo. Washington Univ. Washington, D. C.	District of Columbia and Virginia	Trembly, Edward D. Western Reserve Univ. Cleveland 14, Ohio	Delaware, Maryland and New Jersey
Schmidt, Leo A. Morgan Hall, Rm. 215 Harvard School of Bus. Admin. Boston, Mass.	Massachusetts	Walden, Robert E. Bus. Admin. Bldg. Indiana Univ. Bloomington, Ind.	Indiana
Sowell, Ellis M. Texas Christian Univ. Fort Worth, Tex.	Texas, certain institutions	Williams, H. A. W. Va. Wesleyan Coll. Buckhannon, W. Va.	West Virginia
Staehling, C. C. 119 S. Hall Univ. of California Berkeley, Calif.	Certain institutions in California	Wixon, Rufus 1323 Wells St. Ann Arbor, Mich.	Michigan

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Assistant Professor:	
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Lars G. Crandall	M.S.
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Association Members are cordially invited to communicate ideas and suggestions to appropriate committee chairmen.

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